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ORIGINAL ARTICLES.

ORIGINAL STUDIES ON THE FUNCTIONS OF THE DIAPHRAGM, AS A RHYTHMICAL COMPRESSING MUSCLE OF THE ABDOMINAL VISCERA, BY VIRTUE OF WHICH COMPRESSION IT BECOMES A MOST IMPORTANT AND ESSENTIAL AID TO NUTRITION.

Its Associated Action With Arm Exercise, as Shown by Many Examples in Physical Labor. Its Necessity in the Highest Attainment to Physical Power, and for the Most Perfect Action of the Digestive Organs. The Practical Application of a Proper Understanding of the Functions of This Powerful Muscle, the Great Expansion of Our Ideas and Opportunities to Which Such an Understanding Will Lead in Physical Development, and in the Enlargement of Our Means for Better Nutrition, and More Wisely Directed Preventive Medicines and Hygiene.

BY JUNIUS D. O'BRIEN, M.D., PEMBROKE, KY.

Read before the Hopkinsville Medical Club, Nov. 21, 1890.

We have but little literature upon the functions of the diaphragm. Its anatomical relations have been carefully studied, and are well understood. Its rhythmical contractions and relaxations, and the resulting changes in the thoracic cavity, have been carefully observed, and the proper conclusion arrived at, that it was the great and principal muscle of inspiration. The anatomy of the heart had been long well known before its proper mechanical and physiological functions were even suspected. It remained for Harvey in 1619 to announce his great discovery of the circulation of the blood, well said to be "the most perfect physiological deduction from well-known anatomical facts that had ever been made;" yet for this greatest contribution to our physiological knowledge he was denounced as a vagabond and a quack, and was persecuted through life. The writer now announces, with the modesty due to a great subject, and with a proper appreciation of his own imperfections, that the diaphragm has other great and hitherto almost unsuspected functions, of scarcely less importance to medical science, to sound therapeutics, and especially to the department of preventive medicine, than was the great discovery of Harvey. This discovery the writer announces as a varying rhythmical diaphragmatic pressure upon the abdominal viscera as the most potent factor in digestion, aiding by a shifting force during contraction and relaxation, all the complex changes of chimification, chilification, absorption, endosmose and exosmose actions, all the arterial, venous, lacteal and capillary circulations in the abdominal cavity, and all those obscure molecular, morphological and formative processes which are essential to assimilation, growth and repair.

The writer's study of this subject has extended over 20 years, commencing in an effort to discover what form of manual labor conduced most to a high physical development.

He decided on the occupation of the whipsawyer, because that exercise seems to give in a normal and regular manner the greatest expansion of the chest, followed by the fullest expiration. He found that men of that occupation who elevate their arms regularly during inspiration and depress them during expiration, acquired large, well-rounded chests, with a fine antero-posterior diameter, fine muscular development in general, and that they were noted for long windedness; that they excelled in feats of running and jumping, had noted voices, and that there obtained among them a marked exemption from pulmony affections. He was surprised that this normal increase of inspiratory power was not perceptibly counter-balanced by the injurious inhalation of saw-dust, but on the contrary some of the best subjects he ever examined for life insurance were men who had followed sawing as an occupation. He was further surprised to learn that sawyers required an extra amount of food, and that they could digest food in an amount, and of a quality, not tolerated when engaged in other vocations. There was but one occupation noted that demanded so much food, and that so powerfully aided digestion, which was that of hewing, in which both arms are similary employed. The writer has discovered no exception to this rule, and naturally concludes that it is the increased action of the diaphragm that in these cases so powerfully promotes digestion. Here he again turns to anatomy for a solution of this physiological puzzle. Paley has well shown that there is no chance in organic forms, and that illimitable variations are but perfect mechanisms with especial adaptations to accomplish definite results.

Darwin has demonstrated that even the diurnal and nocturnal folding of leaf and petal is the result of a purpose just as definite, and of a mechanism just as perfectly adapted to the purpose as were the plans, details and specifications used in the construction of the Eiffel tower, which stands to-day one of the grandest monuments to human genius and human achievement.

The diaphragm is seen as a great muscular partition wall, stretched out between the great thoracic and abdominal cavities. What does it separate, and what is its proper function beyond that of a mere wall of separation? Let us see. Above the diaphragm are placed the two great *entrepots* of the system, the lungs receiving the inspired air, and absorbing therefrom by elective affinity the needed oxygen, and excreting the effete carbonic acid, and other elements of waste; and the œsophagus, which receives liquids, and masticated food, and transmits these to the stomach. Between the lungs and just above the diaphragm is placed the heart, a double organ, with two distinct compartments, the right

heart, or engine, carrying venous blood to the lungs, discharging the carbonic acid and bringing back oxygen to the left, whence it is forced by pressure into every cell in the body. The power of the heart has been accurately measured, and normal pressure or force is called health, and abnormal excess or deficiency is called disease. The lungs have also a varying pressure, about equal to atmospheric pressure in inhalation; and always surpassing it in expiration. The heart is an involuntary muscle, commencing work in intra uterine life, and is independent of the will in its pulsations and in its force or pressure. Not so the diaphragm. Birth calls it into action. It inaugurates the phenomena of extra-uterine life, and introduces the child as a perfect being upon the platform of existence. Its first contraction calls into play organs before dormant in the womb. Anatomically, this circular expanded muscle, with a central aponueurosis of crescentic shape, is attached by its whole periphery to the inner chest, forming the thoracic base. It stands solitary and alone, without a counterpart in the muscular system, with connections surpassing any other muscle co-ordinating with the thoracic muscles in inspiration, and antagonizing the variously disposed muscular layers and fasciæ that form the elastic portion of abdominal walls. It acts rhythmically, independently of the will, but under limitations subject to its control. Extending the abdominal walls by pressure on the visceral mass, its power must be equal to the conjoined power of the muscles and fasciæ which it distends in contraction. In its turn, by the reaction of forces, during relaxation, it is forced up into the thorax. The power of this muscle and the pressure it exerts has not been the subject of experiment, but it is a great force, without an approach or a parallel in the muscular system. By experiment with a muscular slip from the diaphragm of a yearling calf, the writer found it capable of sustaining a weight equal to 3000 pounds for the entire diaphragm, or ten times the weight of the animal. This simply shows that its tensile strength was superior to the test, and does not exhibit the weight required to break it. Under severe and spasmodic action, the viscera are forced through imperfectly guarded openings or weak invironments, in the various forms of rupture. Its power and pressure during parturition is very great. It is a potent factor in sneezing, coughing, micturition, defecation, and parturition. But we are more interested in the amount of diaphragmatic pressure exerted in normal life and action, and will not further allude to its amount in extrusive efforts. By the law of Mariotte, "the volume of gases is inversely as the pressure,and the density and elasticity are directly as the pressure." Then the visceral mass, partly gaseous, under a varying pressure is constantly changing in volume, in density and in elasticity, depending upon the state and amount of contraction or relaxation. This rapidly changing pressure is first thrown upon the liver, stomach, pancreas, spleen and kidneys, which lie up under this hollow arch, which 8 times a minute comes down upon them like a huge triphammer, modifying their forms, changing their volumes, forcing onwards their vascular contents, supplementing the elastic forces of their vessels of circulation, and aiding them to perform all those obscure and intricate molecular changes which their construction enables them to perform. This pressure is thrown also where it is met by arterial pressuree, xerting a supporting and modifying influence on their circulation, lessening the tendency to arterial rupture, or aneurism, which is notably about one-tenth as frequent in the abdominal as in the thoracic aorta. It is thrown upon the veins, upported by the vis a tergo of the capillary circulation, and the valves; and the venous blood under this pressure is hurried forward into the inferior vena cava up into the right auricle. But not so with the inferior and superior mesenteric, the gastric, the splenic, and pancreatic veins, with their rich stores of alimentation and of formative products, modified by splenic and pancreatic action. These veins, enriched by absorption from the digestive tract, and splenic and pancreatic products, find no such ready escape from this diaphragmatic pressure, but are collected and turned aside into the vena portæ to be again broken up and distributed through the liver, and subjected to its peculiar action, the bile eliminated, and the modified blood then carried off by the hepatic veins, and thence emptied into the inferior vena-cava, and returned to the heart. Again, the lacteals are subjected to this pressure, and loaded with chyle by endosmose action, and by it this system of vessels has its contents forced upwards into the left subclavian vein. By it absorption is quickened and completed, and through this pressure emulsions are forced through membranes, otherwise impermeable to them. It is probable that the rhythmical wave-pressure is modified, as it goes through the visceral mass, diminished by friction, and that it is supplied to each locality in a measure demanded by the variously disposed organs.The kidneys seem protected by position, and a layer of adipose tissue, from an amount of pressure which these depurating organs may not require. Then we have three pressures or forces,arterial, pulmonary and diaphragmatic. As pulmony and diaphragmatic are somewhat co-related, although distinct, we would expect disturbance of their law of proportion, when very great, to produce disease. These co-related pressures are greatly disturbed, in rarefied or compressed air; and in caissons, it is regarded as indispensable that workers should always eat before entering. This, of course, increases diaphragmatic pressure to some extent, and the violation of these rules so strongly insisted on is often followed by the caisson disease. In lessened diaphragmatic activity, whether from confinement, sedentary occupation, or disease, there is quite a tendency to fatty degeneration of the liver and dyspepsia, and various forms of mal-nutrition. In fishes, we observe a set of pectoral fins ever in rhythmic motion with their respiratory organs. All through the higher gradations of animal life, strength, speed and vigor are associated with and dependent upon arm exercise and diaphragmatic force. This association is absolutely essential

to the perfect type in every class. The lower animals use their arm or foreleg in pursuit of food or prey. When confined in menageries, they are debarred from the full use of these associated muscles, and consumption, otherwise confined to the human race, becomes the scourge of imprisoned life. The galloping circus-horse is the only animal living in accordance with nature's laws in the circus, and he alone retains his beauty, speed and endurance. For the same reason, the fox-hound and grey-hound surpass in beauty, in fleetness, in voice, and in every physical excellence, the sluggish and clumsy cur. It was the boast of a noted racer, that he could select a thoroughbred horse on the darkest night, from a lot of mongrels, by his swelling muscles, his distended veins and his fine hair. The improvement in horses and in dogs by the conjoined exercise of arm and diaphragm is so generally acknowledged that it needs no further elucidation in this paper. What exercise has done for the lower animals, it has done for man. Greece acquired her supremacy over other nations by her games, in which power was developed in running, leaping, wrestling, throwing the discus and javelin and in boxing, and Rome borrowed from Greece all those gymnastics that developed the highest type of manhood All conquering nations have gained their supremacy by developing in their individual soldiers the foundations of the finest physical development.

We need the "arm of precision," extended to physical exercise. We have but to observe the lines of individual excellence, and to observe the law of departure therefrom, and to return to the law of development, to prevent much of that disease which errors of life and entailed infirmities have imposed upon the human race. Exercise is a physiological function, and must needs be based upon sound physiological laws, and demands recognition in this paper. It is not a mere corporeal action, but is connected with a mental effort, for its betterment and habitual improvement.

The diaphragm by its full contractions in inspiration and its periods of rest, acquires increased volume, obeying the laws that govern all muscular development. It acquires increased strength also, and increases the needed pressure to the extent that the digestive organs demand.

The conjoined use of arm and diaphragm is essential to every exercise of the highest physical energy. The jumper swings his arms violently, bringing his muscles into a state of tension, contracts his diaphragm powerfully in inhalation, and makes his leap. The effort ends with relaxation of the diaphragm and expiration. The cowboy controls his bucking horse by cording tightly with a girth the abdominal muscles over the expanding flanks, thus by limiting diaphragmatic contraction, making great leaps impossible. He learns this by experience, and without a theory. As perfected life is ushered in by the contraction of the diaphragm, so it ends with its final relaxation. It retreats into the chest, and the shrunken abdomen shows that this most potent life-force and pressure have ceased.

In asphyxia of new born infants, from shock, loss of blood, etc., restoration is best effected by moving the arms alternately over the head, and across the chest, synchronously with the operator's respiration. This normal force is health, and great excess or deficiency is disease. It is not expected that this claim for an essential and positive force, or pressure of the diaphragm necessary to, and the most potent factor in, digestion shall rest upon the mere assertion of the writer. Its existence and its amount are subject to the same laws of mensuration that determine all other forces. By these tests of mensuration it will and must be established, if fact it be. The apparatus used by Pouisseille for determining arterial pressure is sufficient for this. By connecting it with a bougie, with perforated ends introduced well in the rectum, and communicating with intestinal gasses, the mensuration is easily effected. Or if difficult to connect with intestinal gases, introduce an open end bougie covered by an elastic sac, inflate and connect with apparatus. The pressure will be a varying quantity, with large differences, owing to the strength of contraction, or its condition of relaxation. If this claim is fully verified by careful and exact observation, a new era will dawn upon preventive medicine.

By the report of the medical examiner for St. Louis last year, you will learn that 52% of deaths from all causes in that force, for 20 years, is from phthisis. More than half of a fine picked force die of consumption, while the death rate in all classes in the city from same cause is only 12%. And why this startling fact? Because these men who have shoved the plane, handled the hammer, the hatchet, and trowel, have laid down the tools of trade and use only to a limited extent the organs of locomotion, and become merely the watchers of men. They have ceased arm and diaphragmatic exercise, and malnutrition has ushered in phthisis. The writer has not access to police reports from other cities, but like causes beget like results. The report further states that for two years those examined had lost in *inspiratory* power, and increased in *waist girth.* Our asylums and penitentiaries show an alarming mortality from phthisis. And in what respect do men in confinement differ in condition from the caged animal, except that they are not on exhibition, and have not so free access to the open air? Especial drill exercises would greatly diminish the mortality among all who are deprived of liberty, whether on account of crime or infirmity, and this enforced departure from well understood physiological law is only to be excused upon the barbarous plea that it is the policy of the State to lift the financial burden of their support by decimating these unfortunates by enforced idleness.

Another of the effects of deficient diaphragmatic exercise is that disease of malnutrition, called fatty degeneration, especially common as the fatty liver of the stalled ox, the stuffed goose, the confined and machine-fed chicken, the enfeebled consumptive, for a large number of these emaciated persons have their much-

needed fat stored up in the liver, obstructing its functions. It is common among animals and among men, when deprived of associated arm and diaphragmatic exercise. Undoubtedly, much of dyspepsia, constipation, diarrhœa of consumptives, is but forms of malnutrition, due to this cause and therefore preventable. Much of the benefits of exercise among a large class of invalids is explicable upon the physiological views advanced in this monograhp. Time does not suffice here, in a paper aiming to give prominence to a physiological function, to allunde to the great improvement possible in individual and national life, increase in physical beauty, grace and capacity in many families under exercise; they will be better elucidated when this demonstration shall be accepted, and confirmed by observation and experiment.

The diaphragm is the most potent factor in digestion, nutrition and physical development, and the "arm of precision" must guide ust to health.

HELP AND HINDRANCE TO MEDICAL PROGRESS.

BY JOHN H. HOLLISTER, M.D., CHICAGO, ILL.,

Editor of the Journal of the American Medical Association.

Read before the Mississippi Valley Medical Association, at Louisville, Ky., October 8, 1890.

GENTLEMEN:—In this brief paper I desire to consider some of the hindrances to medical progress, in order that we may the better appreciate some of its helps.

The possibility of progress is conditioned upon the imperfection of present attainment.

Results are dependent upon our abilities, upon our methods, and upon the obstacles to be overcome. The human intellect, although feeble in its beginnings, is capable of remarkable development. The atoms are not too minute for its attention, nor the stars too distant for its measurement.

Yet, much as he may attain to in this brief life, there still remains so much for him to know, that man is either a signal failure, or he is immortal.

Knowledge essential to his simple existence, and even for his well-being, is gained at little cost. But when he reaches beyond this, the shadow-land is on every side. A zone of discoverable, but undiscovered, truths is his environment, beyond which are the realms of the unknowable.

Of all these undiscovered truths, few, if any, seem so difficult of discernment as do those which confront the student of medicine. When we endeavor to estimate the results achieved to our profession during more than 2,000 years, we marvel that more has not been done. Men of genius, whose talent and whose culture have been proverbial, men who have left their impress upon their age, have given the devotion of their lives to the study of our profession, and generations of such have come and gone, yet a few brief facts, a few essential truths, are all that we inherit.

The fault was not so much with men, for they were able and cultured; it was not in their methods, for many of these were beyond criticism; but it lay in the difficulty which attends the discovery of the ultimate truths upon which the science of medicine must rest.

In this present age the new lights which are being thrown upon the fields of medical investigation but reveal new obstacles to our progress, greater even than those we had known—obstacles which must and will be overcome.

In the main, the gross appearances of the organs of the body had become familiar, their functions were measurably determined. Hardly another investigator could attach his name to an undiscovered anatomical part or process. At this point the microscope appeared, at first a mere toy. The fulness of its service shall more affect the welfare of mankind than did the discovery of a continent, for it has revealed a world within our world. The revelation of the ultimate structures of organs is made possible. Cells and cell formatures are recognized. The morphology of tissues is possible of discernment, and such is the importance of these and kindred studies that multitudes of our most gifted men are giving to them the vigor of their years, the service of their lives.

Even more wonderful is the discovery of the microbe. We stand well nigh appalled at the magnitude of the work which is thus revealed, and which must command severest effort before we may realize the full returns.

But labors end not here. Another province is before us, as difficult of possession, yet so rich with promise and so important in its relations to diseases, that at whatever cost it must be wrested to our use. I refer to the intricate relations of the nervous system. None but the keenest discernment will here suffice, none but the rarest technique will avail to trace the delicate threads which bind in one myriads of activities, trend them to a common center, and consort them with a human mind. We already know enough to know that a true fissure vein, a representative of untold values, lies within this field; that its richest treasures are still beneath the surface, and that its full development may tax the utmost of human powers.

Yet, who can estimate the value when what *may* be known is utilized in the treatment of diseases?

But when, if we can conceive the time, when the microscope has rendered its final service and the Alexanders are returning from its conquered fields, still other hindrances remain! Our work is still incomplete.

I think study of medical science will be largely within the realm of thought; mental conditions as they affect the body are yet susceptible of profound study.

There are no questions which seem at the present day more difficult of decision, and upon which medical men, juries and courts are more at variance and more at sea, than upon those which pertain to sane and insane conditions. Mental and moral influences must be susceptible of far more accurate estimate before mental and nervous diseases can receive their most appropriate treatment.

The incoherent utterances concerning mind-cure, faith-cure, and hypnotism are but suggestions of great underlying facts, closely related to the healing art.

Yet another problem is that of the phenomena of matter, endowed with what we term vitality. The laws which are inherent to vital structures are, in some measure, intelligent in their expression, but in much the larger measure as yet they speak to us in unknown tongues. They are so inwrought with powers of self-preservation that the victories which they achieve in their silent warfare with disease far out-number their defeats, by reason of which facts quacks stalk abroad in stolen livery, and the reputation of most physicians is more or less enhanced. He serves his purpose best who best interprets the purpose of these vital acts, who gives to them a helping hand, and is wise enough to interpose no hindrances.

Along this line of studies, so difficult are the requirements that men blunder and stumble and mistake, and bring their calling to ill-repute. They are not wilfully at fault, but in their present ignorance they are unequal to the work with which they have to deal.

Thus, much of hindrances arise from our ignorance of the more delicate structures, the complex processes and the vital phenomena of the human body.

Others arise from the extreme difficulty of determining the extent and specific effects of curative agents. Their helpfulness is too obvious to permit of scepticism, and yet no question is more difficult of decision in medical practice than that which determines how far results depend upon medication, and how far upon vis naturæ. The younger is apt to say, "I cure such a per cent of my cases." In later years he is more apt to say, "I have treated a given number of cases so and-so, and with such results." He has become more and more successful, but perhaps less positive as to the agencies of success.

It seems to a careful student of materia medica as it comes to us from former years, one of the saddest evidences of human weakness and of ignorance, is that men should so have differed in their estimates of the values of remedial agents. The troubled sea is not so unstable as is the rise and fall of their repute. And the saddest fact remains that such instability of estimates was never more apparent than it is to-day. Along this line years of careful observation will be essential to the settlement of our uncertainties. In the meantime, empiricism must command the larger following, but this shall not always be. Results are imperative; their reasons will come to us by and by, and justify our action.

Turn now to other hindrances that are not in our stars, but in ourselves.

Inertia seems hardly more to be a law of matter than it is of mind. A few men are permitted to do the thinking for the world, and the masses are profoundly willing that they should. A few authoritative utterances controlled our medical literature for years. But if we correctly read the indications a new code of things is at hand. Men at last are dealing with foundation facts, a restless spirit of inquiry is taking hold upon the entire world, and the domain of medicine furnishes no exception. In every department of research men exhibit a reverence for truth, never more profound; a disregard for theories which was never more pronounced.

It hardly needs the saying that with the improved facilities now at our command there never was an age or a time so rich in promise of fruitful discovery and of legitimate progress as that into which we enter at this, the close of the 19th century.

If inquiry be made as to the methods of securing this result, I think the answer will be found three-fold:

First. The profession must command for such service a much higher average of native talent.

Second. That talent must receive a much higher grade of culture.

Third. The present methods of research on the part of the profession must be greatly modified and improved.

If we are to be delivered from the evils that most afflict us, two strategic points must be strongly held, at whatever cost:

The entrance to medical studentship must be made a matter of state surveillance. State Boards must pass upon abilities and upon preliminary training, and no man, no matter who he be, found wanting in either of these respects should be conditioned as a medical student.

The second guarded point should be the passage from studentship to the medical degree.

The best results in America will never be attained until there shall come to be one uniform standard of requirement for medical graduation. A result so essential is not visionary. It can be realized. It will be a work of time, but it can and will be accomplished. State legislatures are in sympathy with improved methods. More and more they appreciate the importance of a learned medical profession, and it has only to be as a unit, with the wisdom of which it is capable, and one by one the states will secure to us such legislation. The essentials of ability and culture assured, it remains to speak of a third help to medical progress—namely, of the methods of physicians themselves.

We all come short in this respect, and reforms are everywhere in order. We all need to study our cases more critically; we should classify them more accurately, and we should make them matters of record.

Vague after-memories of a hundred given cases will count little and will soon be gone; but those same cases, with histories carefully recorded, and the salient facts set forth, give us material for definite conclusions, and experience based upon such data is an authority. Such is the work most needed at the present hour. Individual observation, classification and recording of cases carefully studied and digested, give to us the material for progress, and the labors of men who do such work will not be lost.

The next help is the association of such men in medical societies. In the elucidation of truths comparisons are helpful. Intelligent discussion is the mother of development. By it truths are certified, errors are corrected, falsehoods are exposed.

Men trained to a rich personal experience are moved as by a common impulse. Each to the others becomes an inspiration, and sincere searchers for truth, not over-confident, not over-ambitious, are capable of developing some of the grandest combinations of which men are capable.

Such are the possibilities in our local societies, in our state organizations, and in our national associations. Medical progress is to be largely identified with the success of our medical organizations.

The final help to which I shall make reference is that of medical journalism.

The enduring things are those which are written. Of all individual and collective work there is none so effective as that upon the printed page. It then becomes a common possession, and serves its highest purpose. The author may perish, and even his name be forgotten, but his utterance may outlast the pyramids.

The greatest loss the world has yet sustained is the loss of unrecorded thought. But another day has dawned, and the best of what men do and think lives after them. There is no such guardianship of deed or thought as when it is given to the keeping of the press. Journalism has come to the world unheralded and without self-assertion, and yet to-day, in its power, it stands without a peer. It makes and unmakes men, kings and nations. It may be subsidized, it may even be prostituted to vile purposes, but in its battle-fields corruption in all its forms must measure swords with truth, and the truth will triumph. Medicine has suffered much and long waiting the service of an enlightened and reliable medical press. The best thought in the world may now at last be garnered to a common treasury, where withholding does not enrich, and imparting does not impoverish. Medical journals are being so multiplied that every man whose utterances are worthy of a record may find a place of record. The interchange of medical thought is one of the marvels of our age. It compasses sea and land, and is voiced in many languages. It speaks of common needs to a common brotherhood, and the nations are to be unified more specially by reason of the influence of the medical press than by any other agency. If then an agency so wonderfully efficient is at our very doors, who can measure the value of the service which can be rendered by those who are commissioned for its command? Grave and grand responsibilities are incident to such relationships, and men must neither trifle nor falter, if they shall wisely meet the issues which the conduct of the press involves.

To me there are, in our present conditions and in our own surroundings, possibilities which are inspiring beyond expression. But yesterday ours was a continent given over to savagery; to-day it is controlled by civilization. Yesterday we we were but a poor and feeble folk; to-day we number more than 60,000,000. Yesterday our medical men were few in number, and their culture was foreign born; to-day we number more than 70,000 strong, and many of the very best men are of home production. The men are yet living who founded most of our medical colleges, and those who wield pinions plucked from Jove; the champions of the press are companions with us to day, or rest, if they rest, in new-made graves. Can there be given to other lands people so intelligent? Can population elsewhere be so multiplied? Can demands upon medical journalism elsewhere be such as come to us? Can the multitudes be elsewhere so grandly served by an intelligent profession as in this, our own America? And in the attainment of such intelligence can any agent serve us as can our medical press?

Largely, the welfare of the people depends upon the intelligence of our profession, and mainly our journalism is responsible for this intelligence. The science of medicine is worthy of the purest and best work that its journalism can develop. A new world has been waiting for its unfolding, and never was there a people more worthy of the best of medical service. Other nations are to measure our medical men and estimate the value of our service by our standards of medical literature.

This time must suffice, that we have been misrepresented and under-estimated. The medical profession of America is rising to a higher plane of attainment, and to better practical successes than the masses of foreign practitioners have even dreamed of! And it remains for our journals to assert and justify the facts.

I bespeak for all our journals a hearty support, both by the pen and by the purse. I crave on the part of journalists the full appreciation of their high calling. And for my country the noble service which these may render, as the grandest of all helpers in the onward progress of medical science.

REPORT ON PROGRESS.

OTOLOGY.

BY J. B. SHAPLEIGH, A.B., M.D., ST. LOUIS, MO.

Work in the Ear Department of the Vanderbilt Clinic.

Under this head Dr. Huntington Richards, of New York, has given a synopsis of the work done in the department of the clinic from January 1, 1888 (the date of opening), to May 24, 1890, during which time the aural clinic had received 1500 cases. The system of records seems to be complete and carefully looked after since of their 1500 cases, 1489 have histories sufficiently full and varying in length according to the importance of the case. Among these histories were found 71 carefully made pen and ink drawings of the lesions observed and many others diagrammatically recorded.

Without going into the details of the article some

grouping of the figures may be instructive. Of the 1489 cases noted 595 were classed as otitis media catarrhalis chronica—or almost 40%. This is somewhat above the usual proportion, which will generally be found to be about one-third of all cases treated.

Of otitis media purulenta were found 528 cases—(431 chronic and 97 acute). Symptoms denoting implication of the mastoid cells were found 21 times while the mastoid was opened in 3 cases.

This is corroborative of the usual experience that in many cases of middle ear suppuration (especially acute) the mastoid cells may share decidedly in the inflammation and yet yield to appropriate measures without the need of opening the bone.

Such measures are the establishment of free drainage through the external meatus, by the removal of all obstructions (as polypi or granulations, epithelial masses, etc.) and by a free opening of the membrana tympani if needed, and second, by antiphlogistic treatment, both general and local, such as an early dose of calomel, the calcium sulphide, local application of cold, leeching or Wilde's incision. Usually as the symptoms of mastoid disease come on time will be given for these procedures before resort is had to the more radical operation, and in many cases this will not be needed.

"In chronic purulent otitis media, powders and astringent ear-drops are used in suitable cases, the former in small quantity, the latter, rarely; the douche is chiefly, and often exclusively, relied on in combating such cases, and powdered medicaments in particular are more sparingly and much less frequently used at present than they were in the early days of the clinic."

This points to the reaction from the dry treatment so popular with extremists when the boracic acid method was first introduced.

The report of Dr. Richards is not only interesting, but is one in which the officers of the institution may well take pride and we congratulate them on the success attending their efforts.—*Med. Rec.*, September 27, 1890.

Head Injury, with Hæmorrhage from the Ear and Paralysis of the Facial and Auditory Nerves.

J. S., æt. 60 years, a laboring man, states that he has always had good health, except that he has sometimes had attacks of giddiness with dimness of vision, which passed off quickly; no headaches, and does not get up frequently at night to make water; urine normal.

On June 21 he states that one of these attacks of giddiness came on, and that he lost consciousness and fell, striking his head against a curbstone. There was a V-shaped cut over the occipital prominence which bled freely; the bone did not seem injured; there was also profuse hæmorrhage from the ear. He seemed to me at the time to be decidedly drunk, but he strongly denied this afterwards. He could be roused. The pupils contracted to light, and he could move all his limbs freely. I stitched the wound and plugged the ear.

I did not see him for two days. Then all bleeding had ceased. He said he remembered nothing of the fall nor of my visit until he had been told about it. I found a diagonal rent in the membrana tympani, in front of the malleus. There was complete paralysis of the left side of the face, most marked in the lower portion. The eye could not be shut nor could he wink, but the frontalis acted slightly in frowning and wrinkling the forehead. He could neither whistle nor show his teeth, and the saliva ran out of the left ear; singing tinnitus in left ear; tuning-fork on vertex heard louder in left ear, and no difference on closure of the auricle; slight lachrymation of left eye.

In September I saw him again, just three months after the injury. The facial paralysis was almost completely well, except a little bagging of the cheek in whistling. Hearing distance in left ear five inches; complains still of an occasional singing tinnitus in that ear. The paralysis was evidently from hæmorrhage into the internal ear and Fallopian canal.

I think such cases are sufficiently rare to render this one worth being recorded.—*Brit. Med. Jour.*, October 11, 1890. Fred. Tresilian, M.D.

Treatment of Sclerotic Disease of the Middle Ear.

In an article on the above-named topic Dr. Loewenberg, of Paris, records the following observation made by him in the inflation of fumes of bromethyl into the middle ear for the relief of tinnitus (*Deut. Med. Wochenschrift.*, July 10, 1890). After stating that this drug has rendered the tinnitus less in many cases, he states that "if the vapors of ether, chloroform, or bromethyl be inflated into the middle ears of those not suffering from sclerosis of the middle ear, a sensation of coldness in the ear is felt, whereas the same vapors inflated into the ear of one affected with sclerosis of the drum-cavity produce a sense of heat." This may be considered a valuable aid in differential diagnosis and in prognosis. —*Amer. Jour. Med. Sci.*, December, 1890.

Adenoid Growths in the Naso-Pharynx; Results of their Removal in Seventy Cases of Middle-Ear Disease.

In the *Boston Med. and Surg. Jour.*, September 25, 1890, Dr. F. D. Jack has an article with the above title. His results may be tabulated as follows:

Of the seventy cases operated on, forty-three were males and twenty-seven females. The ages varied as follows:

Under five years,	7
Five to ten years,	41
Over ten years,	22
Total,	70

For the sake of easy comparison, we will classify the diagnosis of the ear into purulent and non-purulent otitis. The following tables show the kind and, as nearly as possible, the duration of the ear trouble:

Purulent Otitis.	CASES.
One month or less,	6
One year,	3
Two years,	5
Five years,	1
Total,	15

Non-Purulent Otitis.	CASES.
One month or less,	19
Four months,	1
Eight months,	1
One year,	3
Two years,	13
Three years,	15
Four years,	1
Five years,	2
Total,	55

Considering the twenty-five cases of one month or less as acute cases there have been but two cases of recurrence of otitis. Both of these were of the purulent variety. In one the ear remained healed eight months, when relapse followed an attack of influenza; the other was caused by whooping-cough. The results obtained in all of the cases is shown in the following table, which gives the time during which it is known no relapses have occurred:

Purulent Healed.	CASES.
Two weeks,	2
One month,	4
Two months,	1
Four months,	1
Eight months,	1
Eleven months,	1
Diminished otorrhœa,	2
No improvement,	2
Unrecorded,	1
Total,	15

Non-Purulent Healed.	CASES.
One to three months,	23
Four months,	1
Eight months,	2
Ten months,	6
Eleven months,	4
Twelve months,	6
Twenty months,	4
No improvement,	7
Unrecorded,	2
Total,	55

The cases, I admit, are few to draw conclusions of great value from, still the long period of relief in many of the cases, whose previous history tells of frequent relapses, makes me think that much may be expected from the operation. It will be noticed that the results were somewhat better in the non-purulent than in the purulent, although the number of cases of the latter class is comparatively few.

Removal of a Bullet from the Ear with the Assistance of the Galvano-Cautery.

Dr. Lucien Howe, of Buffalo, reports a case in which a small bullet or buckshot had been lodged in the lower portion of the auditory canal, and in which all ordinary procedures for its removal having failed, an attempt was made to withdraw it by means of a galvano-cautery wire fused into it. After some preliminary experiments, to ascertain the correct proportion between the platinum and copper wire to quickly penetrate the lead without heating the entire mass too much, the fusion was successfully made and the bullet drawn to the narrow portion of the canal, where the wire became detached.

The cautery was then used to roughen the surface of the lead sufficiently to afford a firm hold to a pair of toothed forceps, by which its final removal was effected.—Trans. Amer. Otolog. Society, 1890.

Aural Cholesteatoma.

Under the above title the *University Med. Magazine*, (July, 1890), gives the substance of a paper by B. Alex. Randall, M.D., which was read in the Section of Otology of the American Medical Association, at Nashville. After describing several cases where this condition existed, he concludes:

"In each of the foregoing cases the pearly tumor seemed almost surely secondary to suppurative disease, as is probably usual; yet cases have been reported by Lucae, Kuhn and others, where there was no history or evidence of preceding inflammation. The primary occurrence of cholesteatoma in the temporal bone is a certainty, and as its growth is almost sure to set up purulent disease, it must remain doubtful how often it is really secondary. Its seat is rarely far from the mastoid antrum (even when it occurs as a tumor of the meninges alone), as Virchow has pointed out; and while generally originating in a natural cavity or one formed by carious disease, it tends to grow by the superposition of new layers, and to absorb by pressure the surrounding walls, thus enlarging the containing cavity. It may break through into the external canal, into the lateral sinus or into the cranial cavity, not only destroying important aural structures, but leading directly to fatal results from hæmorrhage, septic otitis or meningitis. This progress may occur without caries, but often gives rise to it as well as to suppuration; and the presence of such a mass, as an obstacle to drainage and treatment, may greatly augment the gravity of purulent inflammation and increase its destructiveness. As Schwartze says in his text-book, 'every case of cholesteatoma is to be regarded as menacing to life;' and

aural surgeons, even if regarding these cases as only desquamative inflammations in their nature, should realize their great clinical importance and seek sedulously to discover and combat them."

In regard to the etiology and site of origin of these masses, Bezold, of Munich, contributes an interesting article in the *Arch. of Otology*, (vol. xix, No. 4.)

"Virchow thinks that the idea that cholesteatoma originates from an epidermoidal transformation of the mucous membrane of the middle ear is annihilated by the very localization of these tumors which, up to this time, he has never been able to discover actually within the tympanic cavity itself—but he usually discovered the growth at the upper and outer corner of the tympanum in the direction of the so-called cells of the mastoid process."

This agrees with the experience of most aurists as to the site of origin of these masses, but they have been often found invading the tympanum itself.

As to the origin of epidermis at this locality v. Troeltsch "thinks it probable that cholesteatoma is a collection of inflammatory superficial products, or, in other words, the sequence of a former or still persisting suppuration from the middle ear."

Virchow considers cholesteatoma to be a heterologous tumor.

Bezold explains the heterotopia of these masses.

After exhausted suppuration in the tympanum with loss of substance of the membrana tympani there are two principal conditions of the tympanic mucous membrane found. First, it may be "perfectly or nearly normal, somewhat of a bony-yellow, or with a mixture of whitish-gray, slightly moistened, with a shining surface, and with many irregular and mostly shining reflexes, here and there overrun with separate vascular ramifications." This is the condition so long as the margins of the perforation are free and do not touch the inner tympanic wall. The handle of the malleus may be eaten around, but if it still hangs free and does not come in contact with the tympanic wall it will not affect the picture.

The second condition is very different and occurs "when any bridge has formed between the remnants of the membrana tympani and the mucous membrane of the tympanic wall, or when, additionally, the limbus of the membrana tympani has succumbed to the destructive action of the previous suppuration."

"The moment that the sharp distinction between the cutis and the mucous membrane has once been lost by the destruction of the surface at any spot, we see the cutis of the remaining intact region gain the ascendency over the mucous membrane, and extend with much greater rapidity over the entire district."

The author is of the opinion that this extension of the epidermoidal growth passes frequently through perforations in Shrapnell's membrane, thus gaining the so-called attic, whence its further growth toward the antrum is easily understood and where the masses are most often found.

WEEKLY MEDICAL REVIEW.

BRANSFORD LEWIS, M.D., EDITOR. W. C. MARDORF, M.D., ASSOCIATE EDITOR.

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SYPHILIS AND THE SOCIAL EVIL LAWS.

Such subjects do not receive the open discussion in this country which they deserve. Every physician of any experience and observation knows the necessity of public prophylaxis in the case of syphilis, as well as the venereal diseases. He also knows that the most satisfactory method of public prophylaxis ever employed up to the present time is the legal control and supervision of prostitution, the most common source and means of spreading these infections. Not many years ago St. Louis by its "social-evil law" had such a control, and its prophylactic influence was not small. Some of our religious and moral leaders, however, who were so afflicted with ethical astigmatism that they could see only one side of a question, could not endure what they conceived to be a blot upon the fair escutcheon of the city. Health or no health, such iniquitous legislation must be wiped out of the statute books. "Touch not the unclean thing" was their motto. It made no difference that prohibitory laws against prostitution did not prohibit. It made no difference that police supervision gave the best results morally and physically. It made no difference that by the removal of this control the opportunities for the spread of disease were vastly increased. The fathers and mothers of Israel who prayed and worked for the repeal of the social evil law did not and do not know that their own sons frequent the houses of prostitution, and are the subjects of venereal infection. They did not know that their own sons, many of them, were destroyers of the health of other innocent members of their own families. If they did know, it made no difference. The iniquitous legislation must go, and go it did, to the detriment of the public health.

It can hardly be maintained by the most ardent supporter of the repeal of the social evil law that the purposes of the repeal have been accomplished. Prostitution has not been diminished. On the contrary it is more flourishing to-day than ever. Public health has not been benefited. Syphilis, gonorrhoea and chancroids occur with increasing frequency. In the mad race to make men chaste in spite of themselves no attention was paid to the body. The soul was not benefited and the body was injured. Laws prohibiting (?) and punishing prostitution have been enacted. No laws protecting the public health of the present or future generations have even been suggested. Our moral and religious leaders were too exhausted by the efforts incident to the repeal of the social evil law to think of prohibiting the marriage of syphilitics, or of placing syphilis and the venereal diseases in the same category with the other contagious affections.

W. N. B.

The Local Treatment of Chronic Enlargements of the Spleen.

The treatment of chronic splenic enlargements, otherwise than by excision, is usually most thankless work, and fresh suggestions as to treatment are always welcome. Mosler declares (*Wien. Med. Woch.*) against operative measures in patients with enlarged spleen, no matter what its variety or size may be, because with this condition there is connected the hæmorrhagic diathesis, even if no hæmorrhages have yet taken place. For this reason operations should be performed only when absolutely necessary. Mosler agrees with G. Simon in considering removal of the spleen in leukæmia a mistake. Indeed, he seems to be decidedly opposed to splenectomy, for this may be inferred from his language in speaking of the difficulty of distinguishing by clinical examination between simple splenic hypertrophy, pseudo-leukæmia and beginning leukæmia. Mosler endeavored, therefore, to obtain therapeutic results by harmless local measures. He was able to reduce the size of the spleen in several cases by injections with a long needle into the spleen of a weak carbolic solution, and also by injections of dilute and afterwards pure Fowler's solution.

He did not use iodine or quinine solutions, believing them to be too dangerous. The "hæmorrhagic diathesis" which he dreads so much did not manifest itself, possibly because of other measures which he adopted before and after the injection, more especially the ice bag over the spleen. He recognizes that his results may be due in part to the purely mechanical influence of the injection, but firmly believes in the specific influence of the arsenic employed, notwithstanding the fact that Murri and Boari, of Bologna, reduced to a noticeable degree the size of a splenic hypertrophy simply by injections of sterilized water.

In a case which died of an intercurrent disease he was able to assure himself of the effects of the injections, which consisted in flaccidity and localized thickenings of the splenic capsule, whereas examinations during life had shown it to be knobbed, and of a firm, hard consistence. Mosler believes that the harder varieties of enlarged spleen are the best suited for the treatment by local injections, and thinks that in such cases the procedure is less dangerous. Even if this treatment does not bring about a cure of the leukæmia he hopes that by it he may be able in favorable cases to obtain a temporary arrest of the leukæmic processes in the spleen, to moderate the subjective difficulties of the patient; he thinks the moral effect on the mind of the patient of such active treatment should not be under-estimated.

Proposed Changes in the Pharmacy Law.

There is at present an agitation on foot among the druggists of this city to secure a change in the State pharmacy law, which it must be confessed is susceptible of great improvement. The law as it now stands reads as follows:

Sec. 4610. It shall be unlawful for any person not a registered pharmacist, within the meaning of this chapter, to conduct any pharmacy, drug store, apothecary shop or store, for the purpose of retailing, compounding or dispensing medicines or poisons for medical use, except as hereinafter provided.

Sec. 4611. It shall be unlawful for the proprietor of any store or pharmacy to allow any person, except a registered pharmacist, to compound or dispense the prescriptions of physicians, or to retail or dispense poisons for medical use, except as an aid to and under the supervision of a registered pharmacist. Provided, that nothing in this chapter shall be construed to require any physician duly authorized to practice medicine in this State to submit to an examination as a condition precedent to a license as a pharmacist, but that the same shall be issued upon the presentation of his diploma as a physician. Any person violationg the provisions of this section shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be liable to a fine of not less than $25 nor more than $100 for each and every offense.

The proposed changes consist in the examination of all applicants for license by the State Examining Board, whether the applicants are physicians or not; the collection of an annual registration tax of one dollar, to provide working funds for the State Board; and the adoption of a clause providing for the enforcement of penalties when violations of the law occur. For want of this latter requisite the law is said to be practically inoperative.

The changes are said to be reasonable, and to be receiving the support of many prominent physicians of this city. We can scarcely believe that the latter statement is a fair presentation of the case, for there are

many equally prominent physicians of the city who are violently opposed to the changes. In addition to this we must consider the vast number of country practitioners who practise medicine and pharmacy at the same time; their rights must be respected, and they should have a chance to be heard on the subject. The expression of ideas from these would be of interest, especially if given in reason and fairness, and without any slurs or contemptuous expressions toward those who hold different opinions. We, therefore, beg leave to defer an expression of opinion on the subject until we have heard both sides of the case, and know more about the question at issue.

To even the most casual observers it is clearly apparent that the highly-injured tone assumed is wholly unwarranted and to a degree nonsensical. If the evil results of allowing physicians in general to practice pharmacy be so great, how shall we characterize the invasion of the physician's sphere by the festive druggist and his cub clerk. This is an evil and a most glaring one, on which pages could be written, but we simply refer to it here, and shall defer its consideration to some future and more fitting occasion.

A Contribution to the Study of Sterility.

Cases of sterility are often among the most perplexing that present themselves to the physician. The causes of the condition may be most obscure, while the ideas of treatment, in order to be effective, must of course be based on a proper conception of the etiology. The importance, therefore, of a record of cases of sterility, arranged in statistical form, can hardly fail to be appreciated. Such a record is given by Drs. H. Lier, and S. Ascher, of Hamburg, in *Zeit. f. Geburtsh. u. Gynak.* (*Med. Chir. Rund.*), the material being furnished by the clinic of Prochownick. Out of 2,500 patients suffering from various diseases, 227 were wholly sterile; of these latter none were married less than 1½ years, and none were more than 40 years of age. There were also 197 cases of acquired sterility. Of the 227 cases, the husband was at fault in 132, and from the following causes: azoospermia and impotence in 53 cases, gonorrhœa in 79 cases. Of the 197 cases of acquired sterility the man was at fault in 2 cases from azoospermia, and in 35 from gonorrhœal infection. If the figures be put together we find that the male was at fault in 40% of 424 cases; in 55 from azoospermia and impotence, and in 114 from gonorrhœal infection. From this it is seen that the husband is more frequently to blame in cases of sterility than we are commonly disposed to believe; further, these cases show the importance of examining the seminal fluid, and inquiring into the husband's previous history as to gonorrhœa, when the wife seeks the physician's advice for her sterility. More than this, the statistics of Prochownick's cases show that where the blame in sterile unions is laid at the door of the husband, the prognosis is much more unfavorable than when the wife is found to be at fault. If in women we leave aside the cases of sterility due to errors of development and an early menopause, we find that there is scarcely a single condition left capable of causing sterility, which can be said to render the prognosis utterly hopeless, and in which we can say the sterility is absolute and irremediable. By far the majority of cases of hindered conception are due to diseased conditions of the mucous membrane of the genital tract, more especially that of the endometrium. Of these latter conditions the most unfavorable are those inflammatory states due to gonorrhœal infection; next, puerperal inflammations are responsible for quite a considerable number of cases, especially if the pelvic peritoneum was involved; less serious are the effects of inflammation of the pelvic cellular tissue. Severe gonorrhœas left obstacles to conception in 114 cases; in these conception followed in but 4 cases; in 27 cases the sterility was traced back to puerperal inflammations; of these only 4 conceived afterwards. The proportion of cures in cases of gonorrhœal origin is so small as to be almost disheartening, only 3½%. As a contrast to this, in 223 cases of sterility due to other causes than severe infections, 51 cases, or 23%, recovered. The total number of recoveries in 376 women was 59, or 15 7%. Of 195 cases, in which the impediment was in the woman, 49 conceived, or 25.2%, and in 168 in which the husband was to blame, only 10 conceived, or 6%.

These figures emphasize afresh the possible bad results which gonorrhœa in the male may entail, and show in a strong light the intimate connection between gonorrhœa and sterility. The authors, therefore, coincide with Sanger, in that they regard gonorrhœa as a disease of great importance in a social sense, which must be opposed by prophylactic measures to the utmost extent.

MEDICAL ITEMS.

It is Stated that a meeting of the Board of Trustees of the *Journal of the American Medical Association* will soon be held, in order to take action upon the question of removing the *Journal* to Washington.

Dr. P. N. Parnowskaja, a Russian female medical practitioner, has been awarded a gold medal by the Moscow Society of the Friends of Natural Science, Anthropology and Ethnography for her work on the Anthropology of Prostitutes and Female Thieves.

Castor Oil as a Menstruum for Cocaine.—To lessen the irritation caused by a cicatrix rubbing over a corneal ulcer, Dr. S. Mitchell, in *Boston Med. and Surg. Jour.*, says he employed a solution of cocaine in

castor oil; this relieved the pain and permitted the ulcer to heal after other solutions had been tried in vain. —*Med. Age.*

Dr. Charles Sutherland for the Surgeon-Generalship.—The President has nominated for Surgeon-General of the army, Dr. Charles Sutherland, who has been in the Medical Department of the army since 1852, and now ranks colonel in the department.

The Election of Officers for 1891, St. Louis Medical Society, resulted as follows: President, Dr. Ludwig Bremer; Vice-President, Dr. J. C. Mulhall; Recording Secretary, Dr. J. I. Guhman; Corresponding Secretary, Dr. R. J. Stoffel; Treasurer, Dr. G. Hurt.

Small-Pox in Guatemala.—It is reported that the republic of Guatemala is besieged by small-pox. The disease has made fearful progress recently. In seven weeks there were 1,200 deaths throughout the country, and the number at last accounts was on the increase.

Two Labors in Six Weeks.—The dailies announce that at Orange, N. J., on November 19 last, Mrs. John Sullivan gave birth to a healthy child which still lives; she recovered from her accouchement, and proceeded with her household duties until December 23, when she gave birth to a second child, also strong and healthy.

The Next Ribieri Prize.—The subject chosen by the Academy for the Kibieri prize is Researches on the Nature and Prophylaxis of tne infectious Diseases of Man. The value of the prize is 18,000 lire, over $3,500. It is open to International competition, but the competing essays are limited to the three languages, Latin, French and Italian.

Precautions Against Phthisis in Berlin.—The Berlin police have ordered that all hotels or apartments taking consumptives to board or lodge, for the purpose of being treated by the Koch cure, shall be disinfected in the same manner as are those occupied by diphtheria patients. A new police regulation provides that all patients shall be registered at the nearest police station.

Dr. J. M. Quigley, of Springfield, Mo., met with a most unfortunate accident recently, while making a professional visit, and injured his right leg to such an extent that amputation of the member below the knee became necessary. The operation was done by Dr. Tefft, assisted by Dr. James and other physicians of Springfield. The many friends of Dr. Quigley will be much pained to learn of his misfortune.

Black Wash in Rhus Poisoning.—I have had a very large experience with the dermatitis of rhus poisoning, and have never seen the application of "lotio nigra" fail in any stage of the disease. The part or parts may be freely bathed with black wash or wrapped in absorbent wool or cotton previously soaked in the solution. Immediate relief of subjective symptoms follows and the objective signs rapidly disappear. I have never seen untoward symptoms.—Dr. J. A. Kite, in *Med. News.*

The Ravages of Epidemic Influenza.—Dr. Benjamin Lee, Secretary of the Pennsylvania State Board of Health, has reported to his board an estimate of the extraordinary losses of life by influenza during the recent epidemic. The number of cases in the State was probably not less than 1,120,000, and the number of deaths was 7,880, or at the rate of one death in every 142 cases.

Charcoal Wafer Biscuits.—These biscuits, as articles of food, are not, from the nature of the active ingredient which they contain, very attractive in appearance, but they posses a flavor by no means unpleasant. Indeed, it would be difficult to say from the taste alone that they contained charcoal at all. There is, too, no objectionable feeling of grittiness experienced during mastication. They are adapted for use in cases of excessive acidity of the stomach.—*London Lancet.*

Death of Dr. F. T. Outley.—On Saturday, December 27, Dr. Ferdinand T. Outley died at his residence in this city, of pneumonia.

Dr. Outley, although a young man still in the thirties, was well known and highly esteemed in the city, and had acquired a valuable practice. He was formerly connected with the Health Department in several capacities at different times.

At a meeting called for the purpose, the St. Louis Medical Society passed appropriate resolutions concerning his decease.

Tomato Poisoning.—Under this title Dr. Mills (*International Dental Jour.*) describes a form of recession of the gums of the superior molars, which he believes to be due to the use of tomatoes as food. The affection is most marked on the palatine surfaces. Great sensitiveness is manifested along the line of recession, similar to that of an exposed nerve. The only remedy was found to be abstinence from tomatoes. If the disease continues, the teeth fall out, not usually more than one being lost in a season.—*Druggist's Circular and Chemical Gazette.*

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died may be mentioned Prof. Karl Weigert, head of the Pathological Department of the Seckenberg Institute at Frankfort-on-the-Main, who succumbed to blood poisoning from a wound on the hand; Dr. Ernst Adolf Coccius (æt. 65 years), who had been Professor of Ophthalmology in the University of Leipzig since 1857; Dr. R. Calmettes (æt. 39 years), a laryngologist of some repute in Paris, and Dr. Du-

marest, of Hauteville (æt. 82 years), who was for many years President of the Ain Medical Association.

Dr. Senn and Rush Medical College.—Dr. Nicholas Senn, of Milwaukee, has resigned from the chair of practice of surgery and surgical pathology, Rush Medical College, Chicago, and his resignation has been accepted by the faculty.

The rupture was brought about in this way: Dr. T. Parkes and Dr. Senn have practically filled one professorship, but Dr. Parkes has done all of the clinical work. Dr. Senn wished to do some of this himself, and asserted that unless it were granted him he would sever his connection with the college. The action of the faculty was adverse, and hence the resignation.

And Yet Another.—Dr. Joseph Craft, of Cleveland, O., asserts in the *Jour. of the Amer. Med. Ass'n.*, that he has discovered the identical lymph of Dr. Koch, and on inoculating himself has obtained the same reactionary symptoms described in Dr. Koch's paper; moreover, that protective effects have been obtained by its use in animals. In order to have the verdict of the medical fraternity upon this lymph, he announces his willingness to immediately send samples of it for testing purposes to prominent physicians in New York, St. Louis, Cincinnati, Chicago, Philadelphia and St. Paul. The fluid used by Drs. Gibbs and Shurly, mentioned in last week's Review, is said to be composed of iodine and chloride of gold.

A Case of Visceral Neuritis.—Dr. John Ferguson, of Toronto, reports in the *Alienist and Neurologist*, the case of a woman, æt. 40 years, who had, following an attack of influenza, the most frightful paroxysms of pain, which nothing could allay, and, despite the efforts to relieve her, died after two weeks of great suffering. Examination of the nerves and ganglia throughout the abdomen showed them to be in a highly inflamed state. Microscopically, there was marked degeneration in some of the nerve tissues. The author said that, while peripheral neuritis was a recognized condition, he saw no reason why neuritis might not affect the viscera, and that this cause might account for some of the violently painful and obscure conditions occasionally met with.—*N. Y. Med. Jour.*

Tea a Cause of Cold Feet.—Mr. Hutchinson says in the *Arch. of Surg.*, July, 1890, that he once advised a lady to drink more tea. "I cannot touch it," was her reply. "It makes my feet icy-cold, and wet with cold perspiration." On further inquiry, she assured Mr. Hutchinson that she was quite certain of her facts, and had often tested them. She thought that the perspiration was usually of the soles chiefly. Her hands were, she thought, also made cold, but not so definitely as her feet. Mr. Hutchinson says he had long been familiar with the fact that tea made the feet cold, but did not know that cold perspiration attended it. It does not do so in all persons. The coldness is caused, he believes, by contraction of the arteries, for the feet at the same time shrink. Alcohol has usually a precisely opposite effect.—*Med. and Surg. Rep.*

BOOKS AND PAMPHLETS RECEIVED.

An Address on Ether Drinking; Its Prevalence and Results. Delivered before the Society for the Study and Cure of Inebriety. By Ernest Hart, Editor of *Brit. Med. Jour.*

Operations on Enlarged Prostate, with a Tabular Summary of Cases. By William T. Belfield, M.D., Chicago.

The Medical Profession as a Public Trust. By Jno. G. Orton, M.D., of Binghamton, N.Y.

The Rotary Element in Lateral Curvature of the Spine. By A. B. Judson, M.D., New York.

Myopia. By Albert R. Baker, M.D., Cleveland, Ohio.

Flat-Foot: I. Clinical Lecture, Post Graduate Course; II. Paper read before Edinburgh Medico-Chirurgical Society. By A. G. Miller, F.R.C.S., Ed., Edinburgh, Scotland.

The Diagnosis of Disease, or When to Operate. By I. S. Stone, M.D., Washington, D.C.

The Treatment of Contracted Bladder by Hot-Water Dilatation. By the same.

A Regional Study of Tumors. By W. L. Rodman, M.D., Louisville.

A Road-Help for the Country Doctor. By Samuel O. L. Potter, A.M., M.D., San Francisco.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Semi-Annual Session, held at Hagerstown, Md., November, 1889. Ninety-second annual session, held at Baltimore, April, 1890.

Suppurating Endothelioma—Myofibroma in a Condition of Necrobiosis—Remarks on the Treatment of the Pedicle, etc. By Mary A. Dixon Jones, M.D., Brooklyn, N.Y.

Another Hitherto Undescribed Disease of the Ovaries. Anomalous Menstrual Bodies. By the same.

Sanitary Address to the People of the State of Missouri, from Committee on State Medicine, Missouri Medical Association. John W. Trader, M.D., Chairman; Geo. R. Highsmith, M.D., Secretary.

Preparatory Education from a Southern Standpoint. By Charles P. Curd, A.M., of Smith Academy, Washington University, St. Louis.

A New Operation for Stricture of the Rectum. By M. G. Thompson, M.D., Hot Springs, Ark.

Paranephric Cysts. By Robert Abbe, M.D., New York.

The Metric System and the Seventh Decennial Revision of the U. S. P. By H. M. Whelpley, M.D., Ph. G., St. Louis.

A Rare Form of Intestinal Strangulation by Band. By the same.

Latin as a Compulsory Qualification in the Medical Student's Preparatory Education. By A. J. Howe, M.D.

Chloralamid—Schering. Lehn & Fink, New York, 1890.

A Metric System of Numbering and Measuring Prisms. By Charles F. Prentice, of New York.

The Abuse of a Great Charity. By Geo. M. Gould, M.D., Philadelphia.

A Clinical Study of Diseases of the Kidneys, Including Systematic Chemical Examination of the Urine, for Clinical Purposes. Systematic Microscopical Examination of Urinary Sediments. Systematic Application of Urinary Analysis to Diagnosis and Prognosis. Treatment. By Clifford Mitchell, A.M., M.D., Chicago. 1890. Price, $3.00. W. T. Keener, 96 Washington street, Chicago.

The Treatment of the Morphine Disease. By J. B. Mattison, M.D , Home for Habitues, Brooklyn, N.Y.

SELECTIONS.

WASHES AND SPRAYS IN THE TREATMENT OF NASO-PHARYNGEAL CATARRH.

BY E. BALDWIN GLEASON, M.D ,

Surgeon-in-Charge of the Department for Diseases of the Nose, Throat and Ear of the Northern Dispensary.

The secretions of the nasal mucous membrane are derived from its mucous glands, and also almost directly from the numerous blood-vessels of the mucous membrane, especially those of the so called erectile tissues covering the turbinated bones. Whenever a nasal discharge consists of a clear, watery fluid—which in hay fever or nasal hydrorrhœa is often very abundant—the fluid comes from diluted blood-vessels and indicates vasomotor paresis, and may be the reflex of irritation of some of the sensory nerve-filaments in the nasal mucous membrane. In such cases, irritating astringents, especially if applied in the form of a powder, invariably do harm and increase the watery discharge. If, however, a 4% solution of cocaine be applied to the interior of the nose, contraction of the vessels is brought about and the discharge ceases. The effects of the cocaine in thus controlling the discharge may be usually maintained for several hours by following the cocaine application by spraying the interior of the nose with an atomizer containing a 4% solution of antipyrin. The nasal stenosis and excessive secretion of acute coryza are at once relieved by this treatment, which may be repeated as often as twice or thrice a day, with the result of obtaining a speedy cure of the "cold in the head."

A patient, during an attack of fever, should be directed to saturate small pieces of absorbent cotton with a 4% solution of cocaine and place one loosely within each nostril, and to renew the application as necessary to obtain complete relief from his more distressing symptoms. An efficient wash for the nose and pharynx to be used by the patient at home should have the following characteristics:

1. It should be alkaline.
2. Its specific gravity should be a little less than 1027, or about that of blood serum.
3. The temperature of the wash when used should not be below 100° Fahrenheit.
4. It should be an agreeable odor, taste, and appearance.
5. It should be antiseptic.
6. It should be so medicated as to be appropriate to the condition of the mucous membrane of the nose and pharynx of the patient for whom it is prescribed.

The specific gravity of the wash should be about 1027, or that of blood serum, because the Schneiderian mucous membrane is exceedingly thin and vascular, and presents the most favorable condition for the occurrence of osmosis and exosmosis. If the specific gravity of a "nose-wash" is much less than that of blood-serum its use is followed by osmosis of the more fluid parts of the wash into the capillaries of the mucous membrane; while, if the specific gravity of the wash is much above that of blood serum, its use is followed by exosmosis from the capillaries of the mucous membrane. In either case there is produced an irritation of the sensory nerves of the mucous membrane, indicated by smarting sensations or actual pain lasting some moments, and soon followed by swelling of the erectile tissues and a "stuffed up" sensation in the nose.

When masses of partially inspissated mucus are retained within the nasal chambers they soon begin to undergo putrefactive changes and the products of these changes are very readily absorbed through the thin, vascular, mucous membrane.

A 20% solution of cocaine, when applied on absorbent cotton to the nasal mucous membrane, produces a more rapid, but, at the same time, more superficial and less profound local anæsthesia than when a 4% solution is used for this purpose.

Applying the foregoing considerations in the construction of a formula for a nose-wash to be used by patients at home, we may make a wash that is bland and unirritating, alkaline, antiseptic, and of the right specific gravity for use within the nose in simple chronic or hypertrophic catarrh:—

℞ Sodii bicarb.,
Sodii biborat., - - - aa ʒj.
Sodii salicylatis, - - - gr. iij.
Glycerinæ, - - - - - fʒj.

Thymol., - - - - - gr. j.
Menthol., - - - - gr. ss.
Aquæ, - - - - ad ℥iv.

M. Sig.: Add to a quart of water and use as a wash.

If to the above formula table-salt or extract of liquorice (1 drachm of either) be added, we still have a cheap and effective wash, whose solid ingredients may be prescribed as a powder, a heaping teaspoonful of which added to a pint of water will form a wash of the required strength; or the powder may be compressed into tablets of such a size that one of them added to 2 ounces of water will form an efficient wash.

Powders used as a "snuff" irritate the nose mechanically, and sometimes bring about a condition of affairs resembling that of hay fever. Simple chronic rhinitis is then, perhaps, best treated by the patient's use, two or three times a day, of a bland and unirritating alkaline wash, and the application by his physician of an alterative and somewhat stimulating solution to the inflamed Schneiderian membrane two or three times a week to bring about absorption of the products of inflammation within and beneath the structure. The following solution, applied to the nasal mucous membrane by means of a piece of absorbent cotton wrapped around the end of a probe, answers very well for this purpose:—

℞ Iodi, - - - - - gr. viij.
Potassii iodid., - - - gr. xxiv.
Glycerine, - - - - fʒss.

The solution, when applied to the Schneiderian membrane, should produce a slight amount of irritation, or the proportion of iodine and iodide of potassium to the glycerin should be increased. Treated in this manner, an apparent cure of simple chronic rhinitis can frequently be brought about within six weeks.

In atrophic rhinitis, however, where mucous glands and blood-vessels are shrunken or destroyed, and the mucous membrane itself is thin, pale, lacks sensibility, and is covered by crusts of inspissated mucus, an irritant wash for the patient's use at home would seem desirable. If the proportion of water in the wash mentioned above be decreased, it becomes somewhat irritating, and its specific gravity is, at the same time, so much increased as to favor exosmosis from the vessels and thus decrease the tendency to the formation of crusts. In the treatment of atrophic rhinitis, the wash should be used two or three times a day, and be of such a degree of concentration that it will produce a slight smarting sensation each time it is used. The stimulation of the atrophied mucous membrane may be maintained during the day by the use of an irritating powder, which the patient can carry in a box in his pocket and use as a snuff four or five times a day. The following formula has answered very well for this purpose:—

℞ Argenti nitratis, - - - gr. ij.
Amyli, - - - - - - ʒiiss.

The use of washes by means of the nasal douche has been very justly abandoned as dangerous, from the fact that, if obstruction of the nasal chambers exists that interferes with the free escape of the wash from the post-nasal chamber, some of the fluid may be forced through the Eustachian tube into the ear and produce acute otitis media. In most cases of naso-pharyngeal catarrh, simply sniffing the wash from a cup or hollow of the hand through one nostril into the fauces is sufficient to cleanse the nose and naso-pharynx of their accumulated mucus. An atomizer throwing a coarse spray may also be used for the same purpose, the spray being allowed to play through the nostril into the naso-pharynx.

When diphtheritic or croupous inflammation has covered part of the mucous membrane of the nose or pharynx with a false membrane, it can often be loosened from its attachments by the use of an alkaline wash, and here simple liquor calcis answers a useful purpose in rendering the membrane more friable and easy to detach. It may be used with an atomizer, or injected into the nose of a child with a medicine-dropper or small syringe, and in the same manner a 1 to 2 or 3000 solution of corrosive sublimate may be used as a germicide and antiseptic. In relaxed conditions of the mucous membrane, for example, the relaxed fauces of smokers and others, astringents are indicated. Here a solution of sulphate of copper, 2 grains to the ounce of water, used with the atomizer upon the fauces once or twice a day, gives immediate relief, and often enables the physician to bring about a cure of this annoying affection without resorting to amputation of the uvula. Where syphilitic ulcerations of the nose, pharynx, or larynx are present, zinc chloride seems to act well as an astringent. If 2 grains of the salt and 10 grains of extract of liquorice be dissolved in 2 ounces of warm water, the solution may be used with the post-nasal syringe, with the result of abating any fetid odor that may be present, diminishing the discharge, improving the condition of the ulcer, and decreasing the inflammation and swelling of the surrounding mucous membrane. —*Med. Bulletin.*

FOREIGN BODIES IN THE EYE.

Prof. David Webster, of the Manhattan Eye and Ear Hospital, advises the following course to be followed in cases of accidental introduction of foreign bodies into the eyes: 1. Always search carefully for foreign bodies on the cornea and on the conjunctiva in cases of inflammation of one eye coming on suddenly and without other apparent cause. 2. Remove them, when found, with as little injury to the surrounding parts as possible. 8. When a foreign body is lodged within the eyeball, especially in the ciliary region, the patient is in danger of losing the fellow-eye by sympathetic inflammation, whether the foreign body is removed or not. The removal of the foreign body greatly lessens such danger. 4. If the foreign body has already destroyed the sight, the eye should be enucleated without delay. 5. If sympathetic inflammation sets in, the sooner the

eyeball containing the foreign body is enucleated the better will be the patient's chances of retaining useful sight. 6. If the fellow-eye is attacked with symptoms of severe *symathetic irritation*, the eye containing the foreign body should be enucleated without waiting for actual sympathetic inflammation. 7. The magnet is serviceable in cases where the foreign body is of at tachable material and *can be seen*, and is not firmly imbedded in the eye wall, nor encapsuled with organized lymph. 8. Where the foreign body is small, and its lodging place uncertain, the introduction of a magnet into the eyeball is generally to be deprecated. 9. After the foreign body has been *extracted* from the interior of the eye, the patient should be warned that sympathetic inflammation may occur, and, in such a case, should not be neglected.—*Medical Record.*

OBSERVATIONS ON THE MOVEMENTS OF THE INTESTINE IN MAN.

Rossbach (*Deutsch. Arch. f. Klin. Med.*, 1890, xlvi, 323) says that there is, as far as he knows, only one case described—that of Busch—in which there had been an injury to the intestine from which the patient had recovered, and which yet permitted satisfactory observation of the intestinal movements. This was a case of abdominal hernia with an artificial anus in the upper part of the small intestine. Through this abdominal opening the movements of the intestine under various conditions could be well seen.

The author has been fortunate enough to find an individual, a woman, suffering from constipation and movable liver, whose abdominal parietes were so remarkably relaxed and thin that the movements of the bowel could be observed with accuracy. Careful study of these, with the graphic plotting of curves representing them, seemed to render certain observations beyond doubt.

1. In the early morning morning hours the intestinal peristalsis as well as the gastric movements appeared to be at rest.

2. As soon as food is taken into the empty stomach and passes thence into the intestine an evident peristalsis begins, alternating with intervals of quiet. Sometimes the movements begin within a quarter of an hour.

3. No difference could be perceived in the intensity of action of different articles of diet upon the intestinal movements; except that coffee, whether taken fasting or after the midday meal, almost always produces the strongest peristalsis.

4. The general irritability of the intestine appeared to have grown very slight by evening, since often no peristalsis was to be observed either immediately or a long time after the ingestion of the evening meal.

5. Except as mentioned, there appears to be no regularity in the intestinal peristalsis. The movements may be present before, during, or after a meal, may be marked or slight, may develop at once after eating or only after one to two hours.

6. The peristaltic motion never lasts long with the same intensity. Large waves alternate with small ones, or with intervals of rest.

These observations apply to the intestine under the influence of ordinary nourishment only. The author has examined also the effect of various agents upon the movements with the following results:

1. Slight degrees of cold, as the mere exposure of the abdomen, produce peristalsis after a few minutes, or strengthen it if already present.

2. Greater degrees of cold, as sprinkling the abdomen with cold, likewise increase the peristalsis only in slight degree.

3. The drinking of cold water produces at once a lively peristalsis.

4. Rubbing of the abdominal walls has no effect.

5. Moderate pressure in the space between the two *recti abdominis* is followed by an unusually active movement.

6. Pressure and squeezing of the intestine itself produce no movement.

7. After coughing the peristalsis becomes evidently stronger during a considerable time.

8. Through pressing [evacuation of the bowels] an increased peristalsis is produced.

9. Respiration does not cause an active peristalsis to cease, but a prolonged holding of the breath does have this effect, though the movements return later.

10. Purgation, accomplished by means of enemata, develops very violent peristaltic movements, accompanied by rumbling and distention of the abdomen.

11. One to two drachms of castor oil taken internally have no effect upon the bowel during the first half hour, but then develop active peristalsis combined with rumbling in the abdomen.

12. Intense sensations of hunger always occasion active peristalsis.

13. The excitement of the emotions (as moderate fright, the sudden refusal to allow the patient to eat when hungry, etc.) causes the immediate disappearance of peristalsis, even when strong. After five to ten minutes the movements return.

14. The employment of electrical irritation produces very varying results. (*a*) The faradic current supplied to different parts [as shown in an appended table] brought out or strengthened peristalsis in a few cases, but its action was very inconstant. (*b*) The galvanic current [as also shown in a table] in like manner usually produced no or but slight peristalsis, and only in a few instances when applied through the rectum succeeded in developing active movements.—*Amer. Jour. Med. Science.*

The McArthur Hypophosphite Company have a unique advertisement in this issue. You will never regret reading it. See title page.

LATIN AND ENGLISH EQUIVALENTS IN MEDICINES.—Dr. H. Rice, of Punta Gorda, Fla., has sent us a carefully prepared list of many of our medical plants, the Latin and English names of which make a confusing mass to the student and practitioner.

Prinos verticillatus,	Black elder.
Sambucus canadensis,	Elder flowers.
Alnus rubra,	Tag elder.
Aralia hispida,	Dwarf elder.
Araliaspinosa,	Prickly ash.
Xanthoxylon fraxineum,	Prickly ash.
Fraxinos sambucifolia,	Black ash.
Aralia nudicaulis,	Am. sarsaparilla.
Smilax officinalis,	Sarsaparilla.
Smilax sarsaparilla,	Bamboo brier.
Colchicum autumnale,	Saffron.
Carthamus tinctorius,	Am. saffron.
Anamirta cocculus,	Fish berries.
Cocculus Indicus,	Fish berries.
Cerasus serotina,	Wild cherry bark.
Prunus Virginiana,	Wild cherry bark.
Adies Canadensis,	Hemlock bark.
Pinus Canadensis,	Hemlock.
Conium maculatum,	Poison hemlock.
Cicuta maculata,	Water hemlock.
Arctium Lappa,	Burdock.
Lappa officinalis,	Burdock.
Saponaria officinalis,	Soapwort.
Quillaya saponaria,	Soap tree.
Corydalis Formosa,	Turkey corn.
Dicentra Canadensis,	Turkey corn.
Actea racemosa,	Black cohosh.
Cimicifuga racemosa,	Black cohosh.
Jacaranda procera,	St. John's weed.
Hypericum perforatum,	St. John's wort.
Collinsonia Canadensis,	Stone root.
Epigea repens,	Gravel plant.
Boxwood,	Dogwood.
Cornus florida,	Dogwood.
Ophelia chirayita,	Chiretta.
Agathotes chirayita,	Chiretta.
Ottonia jaborandi,	Jaborandi.
Hilocarpos pennatifolius,	Jaborandi.
Euryngium sumbul,	Musk root.
Ferula sumbul,	Musk root.

—*Med. World.*

TREATMENT OF PALMAR ABSCESS.—Dr. Spiers, of Edinburgh, O., writing to the Cincinnati *Lancet-Clinic*, draws attention to the good results obtainable by the seton in abscess beneath the palmar fascia. He says: In my experience poultices and fomentations amount to but little. In the use of the lance, whether early or late, parts are severed that never again unite; the hand is left disabled as a consequence. If the abscess be allowed to remain unopened, the pus burrows into, or so paralyzes the muscles of the hand, that its use is ever after limited. In either case a claw hand is the result. I have seen a number of cases and have closely observed the results of treatment. To me no method has proved so satisfactory as the following: Pass a large needle, with a curved point carrying a double thread of surgeon's silk, near or into the annular ligament, well into the tumor and let it emerge between two of the fingers—preferably the ring and middle. The operation is brief, the pain little; but an anæsthetic may be used, or a hypodermic injection of morphia or cocaine may be given if preferred. The double thread is left long, and is knotted at both ends. By alternately pulling the thread backward and forward any pus along the line readily makes its exit. The parts gradually settle back to their wonted place, and recovery is complete. This operation has the merit that it may be used early or late. Of course, it will not retrieve any damage already done. I have frequently resorted to this method in tumors of the face and neck, where it is dangerous to lance or where a scar is not desired, usually with good results.—*Can. Lancet.*

THE TREATMENT OF BOILS.—Veiel (*Monats. f. praktische Dermat.*, October 15, 1890) admits that we already have efficient antiseptic means for the treatment of furuncle, such as Biddle's method of injecting with a hypodermic syringe 3% carbolic acid solution, Lewin's method of cauterizing with nitrate of silver, and the application of Unna's sublimate paste; but he thinks that these methods are too painful for general use, particularly when more than one boil is present. In the place of these the author uses a paste composed of equal parts of zinc oxide and vaseline, and 4% of boric acid. The ointment is thoroughly rubbed into the skin around the boil three times daily, and is also thickly spread upon lint and applied. In cases of general furunculosis the whole body is rubbed with the ointment.—*Med. News.*

THE OPERATIVE TREATMENT OF DISLOCATIONS IRREDUCIBLE BY ORDINARY MEANS.—Several cases of dislocation which could not be reduced by operation, are reported by Mayo Robson (*The Lancet*, July 26, 1890).

In all these cases the ordinary means of reduction were tried in vain. The joints were then exposed by a free incision, and the normal relations of the bones restored.

In the first case there was an irreducible backward luxation of the elbow, seen four weeks after the injury. The triceps tendon was divided and the joint was opened. It was found that the coronoid process was broken in two parts, one being attached to the tendon of the brachialis anticus, the other to the stump of the coronoid process. The external lateral ligament was torn and displaced, lying between the head of the radius and the capitellum, thus preventing reduction. The dislocation was readily reduced, the triceps tendon was stitched with catgut suture, and the wound was

closed and drained; healing was by first intention. Two months later there was a useful movable joint.

The next case was one of irreducible dislocation of the same joint of five months' standing. This was operated on as before, but on account of exuberant callus the head of the radius had to be resected. The function of the joint was perfectly preserved. A supra coronoid dislocation of the shoulder, six weeks old, a dorsal dislocation of the hip ten weeks old, and a dislocation of the finger three weeks old, were also subjected to operation after failure of the ordinary means for obtaining reduction. Subsequent results were all that could be desired.

In contrast to these cases are reported a number where operation was refused. In all a permanent and very great disability resulted.

Statistics show that ninety-five out of a hundred men fail in business sooner or later, and the cases in which a firm sees fifty years of business life are extremely rare. It is certainly then a noteworthy case when a house dates its existence back to the close of the Revolution, as do Walter Baker & Co., the famous chocolate and cocoa manufacturers of Dorchester, Mass., who began business there in 1780, and for a hundred and ten years have made their productions the standard of purity and excellence all over the world. The immense increase in the consumption of their Breakfast Cocoa is largely due to their sagacity in setting and maintaining the standard of absolute purity in its production, thereby insuring its perfect healthfulness and the highest degree of nutrition. No chemicals are ever used in its preparation, but only the action of the cleanest and most exact mechanical processes upon the best materials; and at the Paris Exposition the gold medal for absolute purity and excellence was awarded to W. Baker & Co.'s preparation by the most eminent scientific authorities of Europe.

The Use of Small Doses of Antifebrin.—In the treatment of fevers which are accompanied with cyanosis and collapse, Prof. Sahli, of Berne, employs minute doses of antifebrin, believing that the effect on the temperature can be thus obtained without the disagreeable symptoms attending the administration of large doses of quinine. Antifebrin acts rapidly and effectively in small quantities; on the contrary, quinine has no action on the febrile state when administered in minute doses, and may produce untoward effects from its accumulation in the system. Sahli's observations, comprising eleven cases, have been collected by Favrat in a recent work, and show that antifebrin in small doses is very efficient in combating fevers. The drug was given in doses of from 5 to 10 centigrammes in the form of pilules. Cases of pulmonary phthisis and of typhoid fever were decidedly influenced by antifebrin, and while the drug reduced the temperature, it produced at the same time a sensation of comfort. It prevented sudden exacerbations, and only in two cases were untowarg effects noticed, such as cyanosis, but vomiting and digestive troubles were never observed. The same good results were obtained in the treatment of typhoid fever. In yoong children the initial dose should not exceed two centigrammes. The drug, of course, does not influence complications, and in phthisis, for example, neither the progress of the disease nor the cough is prevented. It is the fever alone that antifebrin attacks, and thus prepares the organism, as it were, to resist more successfully the other symptoms of the disease. The higher the temperature the more decided is the action of antifebrin. It was observed that a temperature of 39° C. could be reduced 1.9° C. by a dose of 10 centigrammes. In the period of decline the drug appeared to exercise the same action, but less markedly.—*La Medecine Moderne.—Med. News.*

Chloroform in Obstetrics.—Dr. J. F. Baldwin, of Columbus, Ohio, in a paper read before the Ohio State Medical Society, entered a plea for the more frequent use of chloroform in obstetrics.

His obstetrical triad is as follows:—

During the first stage of labor, morphia.

During the second stage of labor, chloroform.

During the third stage of labor, nothing.

Summary.—Chloroform relieves pain.

It shortens labor, usually.

It prevents shock.

It prevents nervous and physical exhaustion.

It reduces the liability to rupture of cervix and perinæum.

It does not conduce, in any material degree, to post-partum hæmorrhage.

It does not affect the fœtus.

It is absolutely safe when properly administered.

Contra indications.—1. Such conditions of labor as lead the obstetrician to believe that he may, at some supreme moment, require all the woman's voluntary efforts to assist him. Such conditions are very rare.

2. Fatty degeneration of the heart; though, if we accept the conclusions of the Hyderabad Commission, even this may not be a contra-indication; and the disease is practically never diagnosed except post-mortem.—*Columbus Med. Jour.*

Tamar Indien.—According to the Report de Pharmacie, the formula for this preparation is as follows:

Tamarind pulp, 450; powd. sugar, 40; powd. sugar of milk, 60; pure glycerine, 50 (all parts). Mix and evaporate to the consistency of a soft extract, then add powd. senna leaves, 50; powd. anise, 10; essence lemon, 3; tartaric acid, 3 (all parts). Mix and divide into 100 boluses. Roll in the following mixture: Cream of tartar, 5; white sugar, 35; sugar of milk, 35; tragacanth, 2; tartaric acid, 2; powdered red sandal, 25 (all parts). Dry and put up in tin foil.—*The New Idea.*

Digestive Disorders in Children.—Moncorvo (*Arch. f. Kinde*, xi, 5 and 6), concludes a paper with the following propositions:

1. Disorders of digestion in children are very common in Brazil.

2. The high temperature of tropical climates during the long summer tends to the frequent development of gastric disorders, and this may be more or less influenced by the excessive sweating which the heat insures.

3. Gastro intestinal diseases often co-exist with dilatation of the stomach in children more than two years of age.

4. In children under two years of age defective gastric digestion is usually caused by diminution or absence of free hydrochloric acid in the gastric juice.

5. In the subsequent years of life cases sometimes occur in which there is excess of acid in the stomach, but, as a rule, there is a deficiency, or a want of it, in dyspeptic children.

6. The remedy for deficiency in the supply of acid in the gastric juice consists in the proper use of hydrochloric acid.—*Amer. Jour. of Med. Sci.*

Corrigenda.—In the article on Diphtheria, by Dr. Eichberg, published in No. 486 of the Review. On page 483, first column, line 33, read *consecutive* for *conservative*; line 34, read *as* for *is*; line 39, read anterior *horns* for *bones*.

Progress of the Koch Treatment.—The following telegram gives interesting details concerning the results being obtained from the Koch method in the New York hospitals:

"New York, Jan. 2.—All the patients under the Koch treatment in this city continue to show symptoms of improvement. In the German Hospital to day it was announced that a man who had been a sufferer from phthisis will be discharged as cured in about a week. The cure is regarded as practically effected already, but the case is being retained for further observation.

At Mount Sinai Hospital there were 12 re-inoculations to-day, the highest dose being one of 12 milligrams, which has not been exceeded before in that institution. The young man suffering from lupus mentioned as having been to all appearances cured, will be discharged in the course of a week.

What appears to be a remarkable result has been obtained at St. Francis Hospital through the use of lymph in a case of white swelling of the leg. The patient to whom this treatment was applied was well nigh helpless ten days ago, his leg being confined in iron braces. The inoculation was tried with almost immediate results, and to-day the man was able to walk about the hospital, and is still improving.

A fact that has been noticed with much gratification at many of the hospitals here since the introduction of the lymph treatment is the increase in weight that is everywhere to be observed in the patients. At Bellevue Hospital yesterday it was announced that in the case of one patient, who had been under treatment for two weeks, there had been a gain of seven pounds altogether, two in the first week and five in the second. Another patient showed a gain of four pounds in one week, while all patients have increased from one to two and a half pounds."

Itching.—Bronson (*Med. Record*) thus summarizes a paper on the sensation of itching:

1. That there is a sense of contact independent of the sense of pselaphesia.

2. That this sense of contact is the sense disturbed in pruritus.

3. That it concerns primarily, simple cutaneous nerves or nerve-endings, situated superficially and probably in the epidermis.

4. That the disturbance in pruritus is of the nature of a dysæsthesia due to accumulated or obstructed nerve excitation with imperfect conduction of the generated force into correlated forms of nervous energy.

5. That scratching relieves itching by directing the excitation into freer channels of sensation, sometimes, especially when severe, substituting for the pruritus either painful or voluptuous sensations.

6. That the voluptuous sensations that may attend pruritus are a manifestation of a generalized aphrodisiac sense, representing a phase of common sensation that has its source in the sense of contact.

A. W. MacFarlane, Fellow Royal College Physicians, Edinburgh; Fellow Royal Medical and Chirurgical Society of London; Examiner in Medical Jurisprudence in the University of Glasgow; Honorary Consulting Physician (late physician) Kilmarnock Infirmary; formerly Examiner in Medicine and Clinical Medicine in the University of Glasgow, etc, in his monograph, "Insomnia and its Therapeutics," says:

"Bromidia (Battle) has in several instances been found reliable, in drachm doses, given in syrup and water at intervals of an hour until sleep is induced."—*Wood's Med. and Surg. Monographs*, September, 1890.

A New Anti-Fat Remedy.—Dr. M. M. Giffith affirms (*Indiana Med. Jour.*) that pills made from the extract of poke-berries are a reliable antifat. "It has been my custom," says he, "to gather, in the fall after frost, a quantity of berries, express their juice, and evaporate it to the consistency of an extract, of which I make pills of three or four grains. The dose is two pills before each meal, sometimes increased to three or four."

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service.

FOR THE TWO WEEKS ENDED DECEMBER 20, 1890.

Wyman, Walter, Surgeon. Granted leave of absence for twenty days. December 11, 1890. To attend meeting of American Public Health Association, December 12, 1890.

Long, W. H., Surgeon. Granted leave of absence for seven days. December 20, 1890.

Murray, R. D., Surgeon. Granted leave of absence for thirty days. December 20, 1890.

Irwin, Fairfax, Surgeon. Detailed for special temporary duty at M. H. Bureau. December 10, 1890.

Carter, H. R., Past-Assistant Surgeon. To attend meeting of American Public Health Association. December 11, 1890.

Wasdin, Eugene, Past-Assistant Surgeon. To attend meeting of American Public Health Association, December 11, 1890.

Kinyoun, J. J., Past-Assistant Surgeon. Granted leave of absence for thirty days, with permission to go abroad. December 11, 1890.

Geddings, H. D., Assistant Surgeon. Upon expiration of leave to proceed to New York, N.Y., for tempo rary duty. December 18, 1890.

Treatment of Hæmorrhoids by Cold Water.—According to *La Semaine Medicale*, Dr. Alvin employs very cold water for the pain, tenesmus, and spasm of the sphincter ani muscle provoked by congested hæmorrhoids. The water is applied to the anal region by means of a sponge. This method is very successful when continued for a number of days, and as a result the growths decrease in size, and there is general relief from all unpleasant symptoms. These results are prac tically identical with those obtained by Dr. J. William White, of Philadelphia, whose paper appeared in the *Med. News* some months ago.—*Med. News.*

Scrotal Tumors.—Hernia is sausage-shaped. Hydrocele is pear-shaped. Hæmatocele is globular. Sarcocele and Varicocele are irregular. All are dull on percussion, except hernia of the intestine ,which is clear; omental hernia is dull. All are opaque, except hydrocele, which is translucent. Reducible hernia and large varicocele receive an impulse on coughing, and yield to pressure; the other varieties do not. Hernia and hæmatocele come on suddenly; the others are slow to develope.—*Med. World.*

USEFUL FORMULÆ.

The following are taken from the *Med. World:*

Infantile Convulsions.—By Dr. A. Jacobi, New York City.

Dr. Jacobi first orders a purgative dose of calomel and then follows in a few hours by:

℞ Chloral hydrat, - - - gr. iv.
Potas. bromid, - - - gr. viij.
Aquæ, - - - - - - aa f. ʒj.
Syrupi, - - - - aa f. ℥j.
M. Sig. One dose for a child two years old.

Vomiting of Pregnancy.—By Prof. Goodell, of Philadelphia.

℞ Cerii oxalat, - - - - gr. j.
Ipecacuanhæ, - - - - - gr. j.
Creasoti, - - - - - gtt. ij.
M. Sig. This is to be taken every hour until nausea is controlled.

Prescription for Psoriasis.—By Mr. Jonathan Hutchinson.

The favorite prescription of Mr. Jonathan Hutchinson for psoriasis is:

℞ Acid. chrysophanic, - - - gr. x.
Liq. carbonis deterg., - - - m x.
Hydr. amm. chlorid., - - gr. x.
Adip. benzoat., - - - - ℥j.
Misce, fiat unguent.

At night the patient should wash the diseased surfaces free from all scales; then, standing before a fire, rub on the ointment, devoting, if possible, half an hour to the operation.

Chilblains.—Prof. Morrow is credited with this apparently excellent formula for chilblains:

℞ Acidi carbolici, - - - - ʒj.
Tincturæ iodini, - - - f. ʒij.
Acidi tannici, - - - - ʒj.
Cerat. simplicis, - - - ℥jv.
Misce bene ut ft. ungt.
Sig. Apply two or three times a day.

Anæmia with Amenorrhœa.—By J. Milner Fothergill.

℞ Acidi arseniosi, - - - gr. j.
Ferri sulphat. exsiccat, - - gr. ss.
Pulv. pip. nigr., - - - - ʒj.
Pil. alœs et myrrhæ, - - ʒj.
M. Et div. in pil. No. xl.
Sig. One twice a day after meals.

Cardiac Hypertrophy.—By Prof. DaCosta, Philadelphia, Pa.

Prof. DaCosta directs the diet to consist of milk, fish, vegetables. No coffee or tobacco. And

℞ Tinct. aconiti, - - - - gtt. j.
Tinct. verat. viridis, - - gtt. iij.
Syrup zingiberis, - - - gtt. vij.
M. Sig. This dose t. d.

ORIGINAL ARTICLES.

REPORT OF FIFTY OVARIOTOMIES WITH FORTY-SEVEN RECOVERIES AND THREE DEATHS.

BY H. TUHOLSKE, M.D., ST. LOUIS,

Professor of Surgical Pathology and Clinical Surgery, Missouri Medical College; Consulting Surgeon to the St. Louis City Hospital, etc.

Read before the St. Louis Medical Society, Dec. 20, 1890.

Mr. President and Gentlemen.—In presenting to you this report of fifty ovariotomies, I do not intend to burden you with the detail of the cases, of which I have appended a tabulated statement; nor have I the wish to read to this society an exhaustive or systematic paper on ovarian tumors, their pathology and diagnosis. Of our inadequate knowledge of the former we find authoritative statements in even our latest text books,while the latter must always be, to a great extent, a matter of experience and individual training. Nor may I accord to myself the privilege of more than briefly referring to the brilliant history of the operation, which less than a century ago, beginning with our Ephraim McDowell, has crowned the originator with imperishable glory, and has, as the pioneer operation in abdominal surgery, opened new paths for the recognition and cure of abdominal diseases to an extent and an efficiency which our most sanguine minds, but yesterday, thought utterly unattainable.

When DcDowell died, in 1830, he had performed thirteen ovariotomies, with eight recoveries; but, although to his cases were added some favorable reports by Atlee, Clay and Spencer Wells, in 1843, Diefenbach, the boldest of all surgeons then living, wrote that ovariotomy was murder and that everyone who performed it should be put into the dock. According to Peaslee, up to 1863 ovariotomy had been performed in America 117 times with 68 recoveries and 49 deaths, while in England, Charles Clay, of Manchester, in 1842, gave by his successes a new impulse to the operation. Baker Brown, between 1852 and 1856, operated nine times, with seven deaths. In 1858, Spencer Wells began his remarkable career as an ovariotomist, and with him was commenced a new era in that operation. His successes, the results achieved by Keith, by Lawson Tait, by Schroeder, Billroth, Martin, and by our own American surgeons, are too familiar to need any further mention. Permit me, however, to quote from Greig Smith the following statistics; of 1,000 successive ovariotomies, Wells lost 34 out of the first group of 100, and but 10.9% out of last group of 100. Out of his first fifty ovariotomies Lawson Tait had 19 deaths, but has since had a run of 139 cases without a death.

Keith, beginning with a mortality of about 20%, shows a series of 100 cases with 97 recoveries. Schroeder has 17 deaths in his first 100, 18 in his second 100, and 7 in his fifth. Winkel lost 65% out of his first and 12% out of his last 100 cases. Martin lost 15 out of his first 52 cases and but 3 out of his last 100. Thornton in his first 338 cases lost 10—67%; in his last cases only 7%. "Of my own first cases," says Greig Smith, "I lost 1 in 3; lately I had 31 cases without a death. In the last two years I have had 57 cases with 5 deaths, or a percentage of 8.7%." I believe that up to 1880 all the successful ovariotomies in St. Louis might have been counted on the fingers of two hands.

All along the line we see better statistics, until at the present time ovariotomy is the most successful of all capital operations in surgery. I report my first 50 cases: 47 recoveries and 3 deaths. The results just stated embolden me to believe that I may be permitted to base the description of the operation on my own experience—and right here I must confess to a gradual change from the rigidly extra- and intra-peritoneal antiseptic method of operating to a rigid antiseptic extra-combined with an intra-peritoneal aseptic one. In my early cases I operated under the carbolic acid spray, with the carbolic acid toilet of the peritoneum and complete Lister dressing.

After the introduction of iodoform I believed it proper to use the spray, to rub iodoform into the pedicle and its ligatures, to deposit a small quantity, say ℈j, in the cul-de-sac of Douglass, where the secretions were to be made innocuous by it, and to rub the same into the margins of the parietal wound before closing. Although I did not see any serious disturbances from the use of these agents, I became convinced that they did not favorably influence the process of recovery. Then followed the bichloride of mercury, and I learned that I could not gauge the influence of that antiseptic agent on the free, extensive, unbroken, absorbent surface of the peritoneum by the action it exerted upon raw surfaces. The reason for this does not appear to me so obvious that I believe an explanation unnecessary. In operating I proceed as follows: The patient is kept at rest for two days before the operation, receives a warm bath with vaginal douche once a day, with a thorough scrubbing and removal of all loose epithelium. Bowels are emptied the day before the operation by a laxative, finishing up with a rectal douche. The night before the operation, the pubic region is shaved, the abdomen scrubbed with soap, washed with ether and dressed with absorbent cotton wrung out of a 1:1000 bichloride of mercury solution. The operating room I aim to have at 80° F., absolutely clean. The table and its covers are washed with 1:1000 bichloride of mercury solution. Every assistant, attendant or spectator (the number of which I keep as small as possible), like the operator, is dressed in a white gown sterilized by heat. hands, arms bared above elbows, thoroughly scrubbed and bathed in the mercury solution. I consider the conventional dipping of the hands for a moment a delusion and a snare; they should be soaked for at least five minutes. I myself, while the patient is being anæsthetized, manicure my hands during all that time with

cotton wrung out of the 1:000 bichloride solution. The clean sterilized instruments are put into boiling water; ligatures of silk are taken out of an alcoholic bichloride solution and put into dishes filled with hot sterilized water. I have a large number of smaller and larger pads made of absorbent cotton covered with bichloride gauze sewed over in quilting style. They are placed in bichloride solution the night previous and before using them they are washed in hot water. Ether is preferred as an anæsthetic. The patient placed on the table, has her lower extremities up to the pubes covered with a soft disinfected rubber sheet, which keeps her dry and warm. The parts sourrounding the field of operation, also the hands and arms of the patient are covered with towels wrung out of the hot bichloride solution. I do not empty the bladder. In operating I stand at the side of the patient, facing the pelvis, and cut from above downward towards the bladder. The bleeding from the incision having been arrested and the cavity opened, no antiseptic is used as a rule. Hot water in irrigators is on hand as is also hot Thiersch's and ½% salicylic acid solution. I make the incision long enough to introduce my hand, to examine the general condition of the tumor, as to firmness of cyst wall, nature of contents, etc. I use the trochar for emptying the cyst sufficiently to get it out through the opening made in the parietes, having packed the absorbent pads between the tumor and the parietes.

Soft adhesions are broken up with the finger or pad; firm, long ones are cut between ligatures. Bowels and omentum are peeled off, if possible,otherwise the omentum is ligatured and cut off, or the cyst wall is cut off and left attached to the bowel. The pedicle is ligated with silk ligature; if broad,transfixing it and tying both sides; if narrow, with a single silk string. The adhesions are now treated as they appear, the cyst being *pari passu*, lifted out of the cavity. Sometimes in thick pedicles I tie the arteries separately. I now arrest all bleeding, by pressure, or the ligature, wipe the cavity clean of coagula, drop the pedicle and close the cavity by interrupted silk sutures passed through all the component parts of the parietes, securing good peritoneal contact. I consider the separate suturing of peritoneum, of muscles and fasciæ and of the skin, waste of time and productive of no additional security against hernia. I am careful to get close apposition of the margins, and reinforce the deep by a number of superficial sutures. We dress with loose bichloride gauze, an ample amount of absorbent cotton and the gauze roller bandage. The bladder is emptied with the catheter and the patient put into a well-warmed bed. As a rule the patient gets no medicine. If thirst is annoying, we inject a pint of warm water into the rectum; the second day hot drinks in small quantities are allowed, after that, if the patient's stomach permits it, a light diet is given. On the third day the bowels are moved with ʒ-doses of sulphate of magnesia. Dressing is changed on seventh or eighth day and sutures are removed. According to my observation the temperature rises the second day to 99° or 100.5° F., then becomes normal and most patients menstruate within four days after the operation. There is one factor besides the most perfect cleanliness that I lay stress on. Namely, when the patient is thoroughly under the anæsthetic, to be ready to operate, all preparations having been completed, and to lose no time in getting through. All things being equal,the shorter the time spent at the operation the better. I think my average time is 35 minutes. I have gotten through in one case in 8 minutes, and have required an hour and longer in others.

We have frequently to deviate from the above described course in the operation and after treatment, as special indications present themselves. Permit me to illustrate from some of the cases embodied in this report such modifications of the management of the cases as appeared indicated, and to give a short *resume* of them all. In this connection, I wish to acknowledge my indebtedness to my assistant, Dr. Perkins, for the arrangement of the tables, the items of which he gathered from my private record, from the *Courier Journal*, in which the cases presented before the Medico-Chirurgical Society, are related, and from the books of the Polyclinic, Pius and St. John's Hospitals; as also to him and Dr. Dixon, both of whom assisted me in most of those operations, and to whose management of the details and conscientious observance of all antiseptic precautions I ascribe a great part of my success. There were 52 tumors removed from 50 patients.

Of the 52 tumors, 36 were multilocular.
" " " " 10 " monocysts.
" " " " 6 " dermoid.

In all the dermoids the weight was beyond the average weight of such tumors—four ranging from 18 to 28 pounds. The greatest weight of any one tumor was 60 pounds; the smallest weight of fluid and cyst was 7½ ounces.

In 3 cases both ovaries were removed; 1 case was complicated by pregnancy in the fifth month. In 2 I observed twisted pedicles. The youngest patient operated upon was Miss Julia F., æt. 13 years, of this city, for a 28-pound dermoid tumor. The oldest patient was 64 years, the average age of the 50 patients being 36 years. 12 were single, 38 married; to my knowledge 5 have borne children since. Ventral hernia I observed once. Not one of my patients died of septicism; only one presented septic symptoms, which were relieved.

The case was the following: Mrs. Kern, of Kansas, æt. 28 years, had been operated on in the Pius Hospital for a 28-pound multiloculor tumor of the left ovary. Right ovary apparently healthy; adhesions not extensive. The fluid of the cyst seemed innocuous, and none of it appeared to have gotten into the peritoneal cavity. Toilet of the peritoneum, therefore, was without flushing or drainage tube. Saw patient on the evening of third day, temperature had suddenly risen to 103.5°F, respiration, 140; pulse, 120, and later in the evening 136; belly enormously distended; there was some vomiting and great restlessness. Encouraged by Mr. Tait's experience, I had ʒj doses of sulphate of magnesia ad-

ministered. I sent Drs. Dixon and Perkins, my assistants, some hours later with instructions to open the abdomen, to flush and drain. On opening the cavity there escaped about a quart of bloody serum. They flushed the cavity with a warm ½% salicylic acid solution, and introduced a glass drain filled with strips of absorbent gauze. During the night vomiting ceased, the bowels acted, the temperature dropped, and the next day all threatening symptoms had passed. She made a good recovery and has had a child since.

A few years ago, I am afraid, patients would have fared badly under the opium and ice treatment. The following cases I think are of interest:

Case 23, Miss Wilson, æt. 36 years, of this city, referred to me by Dr. Dean, Jr., was operated on at the Polyclinic Hospital, for multiloculor cyst. On opening the cavity, found tumor presenting a dirty, dull, grayish, instead of a pearly white, glistening appearance, as expected; it adhered firmly to the parietes and was very friable. On puncturing with trochar, a port wine colored, thickish fluid escaped. Not being able to separate the cyst from the parietes, I cut the cyst with the knife, introduced my hand into its cavity and broke down a great number of smaller cysts, all containing the same kind of fluid. I aimed to get at the bottom of the cyst, and to deliver it by turning it inside out. In this I failed utterly. I then with scissors broke up and cut out as much of the intracystic growth as possible, washed the cavity with warm water, dried it carefully, applied an 8% solution of chloride of zinc to its internal surface, filled the cavity with iodoform gauze and sewed the cyst into the parietal wound-margins. Patient got along nicely, the cavity growing smaller daily, holding less and less of the tampon, until a small fistula remained. Some 4 weeks later a piece of necrotic membrane presented at the opening of the fistula, and was removed with forceps. Closing and opening from time to time, all of the cyst wall proper came away, until the patient made a perfect recovery. She has remained well.

Cases Nos. 4, 8, 14, 25, 30 and 36 were dermoid tumors; five of them were removed successfully, the first weighing 28 pounds, from a young girl, æt. 13 years. The tumor contained, as often in such cases, all the possible epithelial derivatives; it also contained a bone, much resembling the lower jaw in shape. Patient is in fair health but has a large ventral hernia.

In connection with case No. 14, I will now give an account of my 3 fatal cases, and in the order of their occurrence. The first case, No. 3, a woman, æt. 54 years, living near Seymour, Mo., had a 48 pound multiloculor tumor, with most extensive adhesions to parietes, omentum and bowels. I was an hour and a half operating, and she died 36 hours later in collapse. I had stripped a good piece of peritoneum off of the parietes, thinking that I was separating the tumor; my experience then was rather limited and I know I would do better now.

The second fatal case, No. 14, was that of a single woman, æt. 45 years, from Bellville, Ills., operated on at the Polyclinic Hospital. She had a very large dermoid tumor, and a great deal of ascites. On opening the cavity and after the escape of the ascitic fluid, I found the tumor with broad, pelvic attachments, which seemed to me insuparable. In the attempt at enucleation, which I, nevertheless, made, the bowel was injured by being caught with some adhesions, in a ligature. I could not remove the tumor; so I split it wide open, removed the contents—all that I was able to—amputated its upper half, sewed its margins into the parietal wound, shut it off from the general peritoneal cavity, washed it thoroughly and tamponed. Through the opening in the abdominal wall one could readily pass the hand to the bottom of the pelvis. Patient got along astonishingly well until the ninth day, when her abdomen became very suddenly distended and she died with what appeared obstruction of the bowel. On post-mortem examination I found the bowel gangreous where it had been caught by the ligature. I dare say, should I now be aware of a similar accident, I should exsect the crushed bowel, and unite the ends by lateral apposition.

The third fatal case was that of Mrs. Hunter, æt. 42 years, operated on at the Pius Hospital. On examination, I found a freely movable cyst, about the size of an orange, weighing when removed, 7½ounces. The case appeared so very simple that I committed the error of not getting the complete history of the case. I may plead, that the patient was so eager for the operation that she withheld facts which would have probably influenced me against an operation. I found she had valvular mitral disease of the heart, that her kidneys functionated properly; but I did not learn that she had had a hemiplegia lasting several months, and of which the evidences had just disappeared. She was given ether by a competent doctor. Just as I made the first incision, I noticed her deeply cyanozed, more so than it had ever been my lot to see before. The administration of the anæsthetic was stopped. I opened the abdomen, found the little tumor, brought it forward, then threw a ligature around its slender pedicle, cut it away; there was no bleeding and I had closed the cavity within 8 minutes after making the first incision. The patient never regained consciousness; nor did the cyanosis disappear until she died.

Having reviewed these 3 cases critically, I have come to the conclusion that I lost the first and second case from lack of experience in the management of extensive adhesions, and the third one from not making an exhaustive enough examination of the patient's general condition. The former causes are no longer operative with me, and the latter should not be. Withal, 3 deaths of a first group of 50 ovariotomies has, to my knowledge, not been excelled.

Of cases of interest which progresed favorably I would mention case No. 47. Patient, Mrs. F., living in Carondelet, had been kindly referred to me by Dr. Bribach, who had diagnosed an ovarian multiloculor tumor, of rapid growth. Concurring in the doctor's diagnosis, we informed the patient of the desirability

TABULATED STATEMENT OF FIFTY OVARIOTOMIES.

No.	Name.	Age.	State.	Doctor.	Description of Tumor.	Weight.	Adhesions.	Present Condition.
1	Miss C.	19	Mo.	Dr. C. & B.	Multilocular cyst.	58 pounds.	Adhesions to omentum anteriorly.	Well.
2	Miss H.	26	"	Dr. W.	" "	22 "	None.	Not known.
3	Mrs. R.	54	"	Dr. W.	" "	48 "	Extensive.	
4	Miss F.	13	"	Myself.	Dermoid cyst.	28 "	None.	Well—large ventral hernia.
5	Mrs. K.	23	Miss.	"	Multilocular cyst.	52 "	Extensive.	Well—child since.
6	Mrs. L.	38	"	"	" both ovaries.	1st, 16 pounds, 2d, 8 ounces.	None.	
7	Mrs McB.	46	Ind.	Dr. P.	Monocyst.	19 pounds.	"	Well.
8	Mrs. H.	42	Mo.	Myself.	Dermoid cyst.	22 "	Anterior.	Well.
9	Mrs. F.	29	"	"	Monocyst.	29 "	Omental.	Well—child since.
10	Mrs. W.	26	Ill.	Dr. J.	Multilocular cyst.	18 "	Slight.	Well.
11	Mrs. B.	42	N. Mo.	Myself.	Multilocular cyst, small sarcoma.	21 lbs., 10 oz.	Extensive and ascites.	Operated on 3 yrs. later for sarcoma of abdominal parietes. Recovered. Died 6 months later.
12	Mrs. L.	48	Col.	"	Monocyst.	11 pounds.	None.	
13	Mrs. H.	32	Iowa.	Dr. McM.	Intraligamentous.	14 "	"	Not known.
14	Mrs. B.	45	Ill.	Dr. W.	Dermoid, partial removal.	Not weighed.	Very extensive pelvic.	
15	Mrs. McM	29	Mo.	Dr. T.	Multilocular cyst.	22 pounds.	None.	Well.
16	Miss K.	21	Ill	Dr. N.	" "	Not weighed.	Slight anterior.	Well.
17	Miss E.	22	Ark.	Dr. M.	" "	" "	Extensive.	Not known.
18	Mrs. K.	60	Mo.	Myself.	" "	" "	Slight anterior.	Died in 1889.
19	Miss G.	18	"	"	Monocyst.	" "	None.	Not known.
20	Mrs. R.	37	Texas.	Dr. S.	Multilocular cyst.	42 pounds.	To omentum, liver & bowel.	" "
21	Mrs. B.	24	"	"	" "	19 "	None.	" "
22	Mrs. McL.	51	Mo.	Myself.	" "	Not weighed.	Not stated.	" "
23	Miss W.	36	"	Dr. D., Jr.	" " portpwine colored fluid.	" "	Firmly adhered—partial removal—packed.	Well—fistula closed
24	Miss C.	38	"	Myself.	Multilocular cyst.	27 pounds.	Extensive.	Not known.
25	Mrs. H.	23	Ill.	"	Dermoid cyst.	9 "	None.	" "
26	Mrs. McG.	40	Texas.	Dr. P.	Multilocular cyst.	Not weighed.	"	" "
27	Mrs. L.	46	Ark.	Dr. M.	" "	" "	Not stated.	Well.
28	Miss O'S.	34	Mo	Myself.	" "	23 pounds.	To spleen, liver & omentum.	
29	Mrs. M.	49	"	"	" "	Not weighed.	Not stated.	
30	Mrs. M.	41	Ill.	Dr. G.	Dermoid cyst.	27½ pounds.	To intestines.	
31	Mrs. D.	26	Mo.	Myself.	Monocyst.	21 "	None.	
32	Mrs. L.	58	"	"	Multilocular cyst.	Not stated.	Slight.	
33	Mrs. C.	52	Col.	Dr. R.	" "	" "	Not stated.	
34	Mrs. R.	64	Mo.	Myself.	Monocyst.	Not weighed.	" "	
35	Mrs. McH	29	Ind.	Dr. P.	Multilocular cyst.	34 pounds.	" "	Well—child since.
36	Mrs. S.		Mo.	Myself.	Dermoid cyst. Pregnancy.	18 "	Extensive.	
37	Mrs. H.	38	"	"	Multilocular cyst.	Not weighed.	Not stated.	Well—carried child to term.
38	Mrs. P.	47	Ark.	Dr. M.	" "	60 pounds.	Very extensive.	
39	Mrs. J.	32	Ill	Dr. B.	" "	21 "	Not stated.	
40	Mrs. L.	26	Mo.	Myself.	" " Both ovaries.	Not weighed.	None.	
41	Miss R.	24	"	"	" "	42 pounds.	To omentum.	
42	Mrs. H.	37	"	Dr. L.	" "	Not weighed.	Not stated.	
43	Mrs. D.	42	Ill.	Myself.	" "	38 pounds.	" "	
44	Miss K.	39	Mo.	Dr. D.	" "	50 "	Extensive.	Well.
45	Mrs. K.	28	Kan.	Myself.	" "	28 "	Not extensive.	Well—child since.
46	Mrs. H.	42	Mo.	Dr. D;	Monocyst.	7 ounces.	None.	
47	Mrs. F.	25	"	Dr. B.	Multilocular cyst.	Not weighed.	Slight, twisted pedicle, cyst suppurating.	Well.
48	Mrs. H.	28	Ill.	Dr. C.	" "	" "	Omental.	
49	Mrs. M.	28	Mo.	Dr. P.	" "	22 pounds.	Omental and twisted pedicle.	Well.
50	Miss K. C.	22	"	Dr. P.	" "	20 "	Omental.	Well.

Recovery in all cases, except in Case 3, died 36 hours after operation; Case 11, died 9th day, and Case 46, died 30 hours after operation.

of an operation in the near future. Some two or three weeks later, patient rather suddenly commenced to suffer severely; there was tenderness in the abdomen, and tympanites became progressive, accompanied by rise of temperature to 103°F. The patient was at once removed to the Pius Hospital and prepared for immediate operation. After opening the cavity we saw the evidences of a general peritonitis, and the flaccid cyst looked dark, blackish-green. In the fluid emptied we noticed an admixture of pus. Delivering the very fragile cyst we found a twisted pedicle accounting for the patient's change of condition. Gangrene of the cyst seemed imminent, and some of the intracystic partitions had become necrosed. There was pus in the pelvis. The operation had presented, mechanically, no great difficulties, but very thorough flushing was deemed necessary. I therefore carefully washed out the cavity and contents with a warm ½% salicylic acid solution, and last with sterilized warm water, dried as well as was feasible and introduced drainage tube. Patient's temperature dropped the next day to 99°F. and she made a rapid recovery without a single bad symptom. The other case of twisted pedicle presented no special features; the pedicle was long and slender, and was twisted 3½ times upon its axis, from left to right.

I shall give no more details, but refer to the accompanying table. I have learned that iodoform, carbolic acid and bichloride in the peritoneal cavity, somtimes produce pain, occasionally poisoning, and generally no good.

To have the patient, operator, assistants and instruments prepared as indicated, to have the open wound thoroughly antisepticised and to leave the peritoneal cavity in an aseptic condition, are the pre-requisites for success. To operate rapidly, but without haste, saving time as much as possible, will be another factor in assuring the same results; add to this experience in abdominal surgery and the habit of *operating*, and we make the *operation* of ovariotomy the most successful capital operation in surgery.

Cor. Jefferson Avenue and Lucas Place.

NASAL AND PHARYNGEAL MANIFESTATIONS OF SYPHILIS. RESULTS AND TREATMENT.

BY J. G. CARPENTER, M.D., STANFORD, KY.

Read before the American Rhinological Association, Louisville, Ky., October 6, 1890.

Primary syphilis, including the period of inoculation, development of the chancre and infection of the adjacent glands, is found infrequently in the nasal and pharyngeal chambers, though it is observed more frequently in the mouth and upon the lips; consequently, the secondary form of syphilis and its sequelæ concern the rhinologist more than any other variety.

What was once considered tertiary and quaternary syphilis by former sypihlographers, is to-day, in presence of scientific light, called sequelæ of syphilis.

All modern aggressive specialists in venereal diseases admit that there is a contagium of syphilis, and that it is a self-limited disease, and primarily infects the system through the lymphatic channels, and does not contaminate the blood until the chyle is emptied from the thoracic duct into the left subclavian vein, when poisoning of the blood and general infection of the system take place. Dr. Ephraim Cutter, of New York City, claims to have discovered and isolated the contagium of syphilis, viz., the "crypta syphilitica;" other scientists claim otherwise, and the question is yet *sub judice.*

In *Gaillard's Medical Journal*, 1884, there is this statement made by Dr. Cutter: "There are some physicians who are familiar with the morphology of the blood of syphilitics. By microscopically inspecting the blood of a syphilitic, make out the diagnosis of the disease at once, with certitude unusual in human affairs. Besides this, they tell when the patient is really cured by noting the disappearance from the blood of the peculiarities of syphilitic blood, and claim that the "syphilitic" can transmit syphilis so long as the "crypta syphilitica" is found in the blood. It is claimed for the latter that algoid forms of vegetable life exist; the white corpuscles are enlarged and contain copper-colored spores and filaments with obtusely rounded ends; these spores and filaments are found in the primary sore (the chancre), in the pus and secretions of secondary lesions. The presence of syphilis is signalized by local cell proliferation, causing salient engorgement and induration at the point of infection, then of the adjacent glands, and finally appears every recognized lesion of syphilis. The juices or secretions of any of these lesions will produce syphilis in a healthy person. Otis states that these secretions contain microscopically, cell material, germicidal matter; so far it is impossible to distinguish the diseased cells from the healthy. It is only by its abnormal amount and peculiar aggregation, together with its infective property, that it can be differentiated from the most healthy germinal matter. The initial lesions of syphilis microscopically show that the indurations are made up of cell accumulations which involve the walls of the blood-vessels, even obliterating them, which indicates that it is not an inflammatory process, but a local cell proliferation. In the induration of syphilis there is a dry anæmia of tissue, resistant connective tissue, considerably thickened walls of the vessels, which make it difficult for the serum to escape, and also diminish the caliber of the vessels; this explains why the syphilitic induration breaks down into a molecular mass, and why resorption takes place so slowly. The cell accumulations which constitute this induration have been found to occur in the lymphatic vessels in communication with the chancre. They are recognized by their knotty, cord-like feeling under the integument, running to the lymphatic glands, into which they empty, and in time become depots for the proliferative process. They are proven to be characteristic

of the presence and advance of syphilitic disease. Only during the active stages of syphilis, the primary and secondary periods, the contagious element of syphilis is present; therefore, hereditary transmission of the disease is only possible during this time, usually from one to three years in duration.

The sequelæ of syphilis (the tertiary and quaternary periods) contain no discoverable element of contagion; microscopic examinations of the various forms of gummata, including the eruptions, have failed to demonstrate anything beside the fibers of normal germinal elements. Repeated inoculations of these products have failed to disclose any contagious principle—without contagium, there is no syphilis. The physiological secretions, milk, saliva, urine, perspiration, tears and spermatic fluid have not been proven to be agents of syphilitic infection.

The presence of the initial lesion of syphilis in the nasal or pharyngeal chambers causes swelling of the mucous lining, pain, fever, infection of the adjacent glands and in the nasal chambers difficult nasal respiration.

Syphilitic rhinitis may occur as the result of heredity; the local lesions of secondary syphilis found in the upper air passages may begin as a catarrhal inflammation (rhinitis or pharyngitis), a local circumscribed erythema, a papular, pustular or tubercular deposit, in which the epithelium of the mucous membrane becomes rapidly softened, disintegrated and abraded, leaving one or several erosions, which become quite painfully sensitive. At first they are bathed in a mucous secretion, which soon becomes muco-purulent or purulent. As the ulcers enlarge and disintegrate, the secretion and pain increase, and the erythematous area becomes more extensive, is puffy and more livid than normal; the surface of the ulcer presents a dirty, ashy-gray aspect, and daily gets more excavated, and is circular, oblong or irregular in shape. If the ulcerative process is not checked by appropriate treatment, the sub-mucous connective tissue becomes involved, and the destructive process may reach the periosteum and cartilage. The secretion is now a yellow, or yellowish green, the aqueous element evaporates, inspissation and desiccation of the secretion result with the formation of scabs or brown crusts, streaked with blood, and mixed with disintegrated tissue. The secretions and crusts hang tenaciously and give a very offensive odor, and act as a constant source of irritation to air-passages. Necrosis of the septal and laryngeal cartilages, and of the adjacent bony walls which make up the frame or skeleton of the upper air passages, occurs as a sequela of tertiary syphilis, and occurs five to thirty years after the initial lesion has appeared; and to the writer it seems that those who have been improperly treated or neglected are especially predisposed in this way.

Those syphilitics who have been treated from a year and a half to four years by an expert have remained free and are usually proof against tertiary manifestations.

This hasty proliferation of syphilitic material, like normal cell material in excess of the necessities of growth and repair, undergoes fatty metamorphosis, and is eliminated from the affected organism. Baumler states this takes place in the majority of cases, and at the expiration of eighteen months or two years the infection is entirely exhausted.

In treating syphilis of the nose and throat it is very important to arrest and cure the disease in the shortest period possible to prevent destruction of tissue and deformity. Following syphilitic ulceration of the soft tissues of the nose, palate, pharynx and larynx, there are deformity, dysphagia and faulty voice; the anterior or posterior nares or Eustachian orifice may be occluded by adhesions, so as to interfere with their functions; the oro-nasal aperture may become obstructed by partial or complete adhesions of the uvula or palate to the posterio wall of the pharynx, the anterior and posterior palatine walls on one or both sides may be destroyed, also the palate, partly or totally. The destructive lesions may extend by continuity of tissue from the lower wall of pharynx to the larynx, destroying the epiglottis, the vocal cords and mucous membrane of larynx. The nose and its bones may be destroyed. It is in the tertiary stage of syphilis that such destructive lesions of the soft parts, with caries and necrosis of bones and cartilage, result. Stenosis from cicatricial deformity may result in ulceration of the larynx, which may necessitate tracheotomy.

What are often thought to be gummata or syphilomata of the bones of the nasal and pharyngeal chambers are really disintegrated soft tissues leading to dead bones.

Goodwillie states necrosis of the bones of the internal nose and maxillæ occurs in the following order, viz.: the vomer, vault of hard palate, lower portion of the ethnoid, inferior turbinated, the inter-maxillary, the turbinated, the antrum wall, the maxillæ and the superior tubinated. The best remedy for the cure and treatment of syphilis is mercury; it produces fatty metamorphosis of living tissue.

Healthy persons quickly emaciate and all kinds of tissue break down under its continuous excessive use.

All remedies which have aided in the cure of syphilis have caused fatty metamorphosis of tissue. The grand object to be accomplished in the treatment of syphilis is to arrest and eliminate superfluous cell proliferation, at the same time eliminating the contagium of syphilis. The continuous use of mercury in small tonic doses, from one to three years, short of producing tenderness of the gums and slight ptyalism or relaxation of the bowels, is the most appropriate treatment for the permanent cure and eradication of the disease from the system.

The protoioide, the biniodide, and the bichloride of mercury stand at the head of mercurial preparations. External applications to the groins, arm-pits, inside of thighs, two or three times a day, are adjuvants of the greatest importance in the treatment of syphilis.

Whatever constitutional vices or functional disar-

rangements exist must be corrected. The old axiom, "that we treat the patient and not the disease," must not be forgotten in the treatment of syphilis. No two obstacles stand more in the way of a successful issue in treatment than the use of rum and tobacco. Their use must be interdicted, or a tedious convalescence can be anticipated.

Otis states that a judicious mercurial treatment will hasten the cure of the acute lesions of syphilis; but it is not on this account alone that it is so essential, but the fact that it prevents the sequelæ, which result in destruction of important tissues and organs, vessels and bones. In some cases the mixed treatment is preferred from the first. In the last half of the treatment it is, doubtless, best to use it. After a long mercurial course it is judicious to give the iodide of potash, pushed to the point of physiological toleration, each patient being a law unto himself as to size and frequency of dosage.

The iodide of potash stands next to mercury in causing fatty metamorphosis of tissue, and is highly essential in the secondary lesions as well as in the sequelæ, and should be given in the largest dose short of iodism (pushed too far, it impoverishes the blood, diminishes the quantity of fibrin, increasing waste and consequent tissue metamorphosis, interfering with the function of nutrition and producing a condition of cachexia with catarrhal secretions.—Goodwillie).

Local Treatment.

The local treatment of syphilitic lesions of the nose, pharynx and larynx consists in mild antiseptic and aseptic soothing and cleansing applications to disinfect, soften, detach and wash away the morbid secretions and crusts which vitiate the respired air and act as foreign materials causing constant irritation, blowing and hawking; and in the use of such other medicaments as will arrest and restore the affected parts to a normal state in the shortest period in conjunction with constitutional measures.

Listerine, ℥j iij, glycerine, ʒxj, salt, grs. v-x. Or listerine, ℥ij, aqua, ʒx, sodii-bicarb., sodii biborate, aa grs. v; or salt, ℥j, aqua fero, ℥xvj, snuffled through the nose with the head in three positions (Rumbold's), and gargled in the throat, or sprayed with a DeViebis spray tube, will usually cleanse the parts thoroughly, though several sittings have to be made in some cases before thorough cleansing is accomplished.

If mucous patches or superficial ulcers exist, mild caustic applications must be made, as the case demands; if ulcers are deep seated, carbolic or nitric acid, the acid nitrate of mercury or solid stick of silver, or the cautery, must be applied, due care being taken to protect sound tissue. After thorough cleansing and cauterizing, it will be advisable to dust the sores with iodoform, bismuth or tannin. Should a chancre be present it requires the same treatment and attention as in other regions.

For the syphilitic rhinitis, pharyngitis or laryngitis, after cleansing is accomplished, if the inflammation and pain are very intense, muriate of cocaine, 2% or 4% solutions should be sprayed, followed by vaseline ℥j, oil of eucalyptus, gtt. v, menthol, grs. iij; or menthol and vaseline in the same proportion, or iodol, grs. x, vaseline, ℥j, sprayed upon the affected parts. Acidi corbol, grs. v, pinus canadensis, ʒ¼, aq. Peruv, ℥1/6, glycerine, ℥jss, is a most excellent tonic and astringent application, and will in many cases be more essential than other measures.

In the removal of the tenacious secretions the probe and forceps may be demanded.

For the treatment of the sequelæ of syphilis, caries and necrosis of bone and cartilage of the contiguous bones of the naso-pharynx and larynx, the same surgical rules hold good as in other localities, viz., to remove the dead bone, prevent further disintegration and render the wound aseptic. Dr. Goodwillie conferred a blessing upon rhinologists when he invented the circular revolving single and multiple knives and saws and drills for removing dead bone from the walls of the upper air passages. Attached to the dental engine they remove the sequestra very quickly. While local measures are essential, constitutional treatment is the one thing needful in removing the dyscrasia.

CLINIICAL NOTES.

BY JULIUS KOHL, M.D., BELLEVILLE, ILL.

Read before the St. Clair County Medical Society, Dec. 4, 1890.

Case I.—Mr. L., æt. 25 years, stout, tall and apparently in good health, was admitted to the hospital on May 24. He complained of incessant vomiting. More than two ounces of food taken into the stomach at one time would be promptly thrown up again. There was no fever, no pain, not even on pressure, there was only noticeable a slight elevation over the left epigastric and hypochondriac regions. The tongue was moist and its coating indicated slight gastric disturbance. The evacuations from the bowels and bladder were normal. Diagnosis: "slight gastritis."

For the sake of brevity I will omit the particulars of the treatment. The dietary regulations constituted the main part of it. The patient improved rapidly. Being displeased, however, with the small quantity of food allowed him, he left the hospital after two weeks. In a few days he returned, much worse. He was put on the same treatment and improved slowly. Great hunger drove him out again one day. He entered the first grocery store which he met and filled himself with all sorts of eatables. It was the middle of June and fruits of all kinds were plentiful.

In the evening he returned to the hospital in a pitiful condition. Emesis was frightful. With the best of care, every effort to relieve him failed. Even a teaspoonful of food would produce vomiting. Nourishing by the rectum has its limits; which was proved in this case. He died on July 2.

Post-mortem: All thoracic, abdominal and pelvic organs were in a perfectly normal condition with the exception of the stomach. This was enlarged to about 4 times its normal size. It looked like a large longitudinal inflated ox bladder. The seat of the disease was found in the pylorus. It was completely occluded, being held by a firm constricting band, apparently non-malignant. A probe could only be forced through it.

It had been impossible to get anything like a history of the case from the patient, for he was endowed with more than ordinary stupidity. Evidently, this was a case where surgical interference would have been warranted. Its features are so vividly imprinted on my mind, that I will certainly not lose another opportunity like this, to operate. I had suspected a stricture. I had probed the æsophagus. I had spoken to the patient of the probabilities of relief from an operation. But since he had twice recovered by treatment, an operation in this, like in many other instances, was postponed, until too late.

There are a few successful cases of the kind on record. Billroth has had several. I think in a case like the one described, an operation is warranted. I doubt, however, whether it will ever become a favorable one. The specimen, which I intended to show you, was, in an unguarded moment, destroyed by the office boy.

Case II.—J. J., a man, æt. 61 years, was admitted to the hospital on January 7, 1889. He complained of great debility. There was no fever and no pain. Tongue showed gastric lesions. There was persistent constipation of the bowels, unless emptied by cathartics and enemata. There was only a little tenderness on pressure over the epigastric region. No swelling. Urine normal. I administered bismuth, lactopeptin and so on, and regulated the diet. The patient nearly fainted after each meal, however small in quantity; while hunger persecuted him. A dose of wine of pepsine, taken immediately after eating, and going to bed would give relief. There was no vomiting until toward his final collapse, nor was there any fœtor from the mouth; excluding the possibility of cancer, or ulcer of the stomach.

(Permit me to insert right here a most reliable aid in the diagnosis of ulcer of the stomach. If ulcer is suspected, give your patient a piece of raw onion to eat, and you will soon hear from him.)

Diagnosis: "Stricture of the pylorus."

Patient grew worse from day to day. He had heard of an operation, and asked imploringly to be relieved by surgical interference. I declined. So did other surgeons. The feeble condition of the patient positively excluded all hope of success.

He died on March 7.

Post-mortem: I have here the stomach. As you see, there is much thickening of the mucous membrane; the rugæ look black, as is seen in stomachs of drunkards. This was not the case with the patient; this is only venous congestion and is easily explained. The size of the stomach is normal. There is, of course, a pyloric stricture, but only one, which I would call a passive one. The seat of the whole trouble I found elsewhere. I found a condition of things, which I have never seen described. There was nearly a total obliteration of the biliary ducts. The ductus communis choledochus had disappeared altogether; of the hepatic and cystic ducts there were only thread-like remnants left, which broke down upon the first touch. The gall bladder was distended enormously; it was as large as a good-sized California pear, and filled to its utmost with inspissated bile, of soft soap consistence. I am sorry that I did not leave it intact, so I could show it to you. I emptied it into a bucket containing water. When I accidentally dropped my knife into it, and took it out again with my hand, I found the same almost saponified from the strong biliary solution. The cause of this man's death was now plain. Since bile could enter the duodenum the digestion had to stop. Hence the grey stools; hence the fainting after eating. It appears that nature had stored up the bile as long as it could. There was no icterus apparent during life. The hepatic functions had been normal. What could have caused the obliteration of the hepatic ducts, I am unable to say; probably it was caused by an impacted biliary calculus. I found none, however, anywhere. Former inflating conditions must have resulted in this atrophy.

It is well to record cases like these two. They are valuable for future diagnostic purposes. It is impossible for text-books to relate everything which occurs in pathology. We cannot all make discoveries like Dr. Koch, or furnish results of investigations like the Hyderabad Commission. But we can store up a vast amount of valuable practical information by a little diligence.

A QUEER CASE OF PREGNANCY.

BY EUGENE F. HAUCK, M.D., ST. LOUIS.

Mrs. P., æt. 42 years, mother of eleven children, asked me to call on her about the middle of last October. She imagined herself pregnant with the twelfth child and expected her confinement about October 19. She had had her monthly flow, however, regularly every month and was a little surprised at that, although she would have her periods for three or four months in all former pregnancies. She had for nearly nine months almost constant nausea and very often vomited. Had felt life since about June 1, she claims. Lately the fœtal movements would stop for days and then again would be feebly felt. She said, however, that they at no time had been very strong, and that they felt different than with her other children. A midwife, who has been practicing for about twelve years, had examined her when she was about five months gone, again when seven months had elapsed, and once more just before I was called, and told her she might expect her baby now any time. I knew the patient well, she was very fleshy, weighed over 200 pounds, drank large quantities of

beer, etc. Upon examination I found the following condition: Abdomen very large, but flabby; fundus of womb could barely be felt by deep pressure. Liver greatly enlarged and somewhat painful on pressure, extended three and one-half inches below border of ribs. Vaginal and bimanual examination showed womb to be slightly enlarged, slightly retroverted, an old lacerated cervix with erosions, but no pregnancy. She also has a very severe multiple neuritis, caused by alcoholism. Her memory is very weak, and even now, two months later, she still believes herself pregnant, at times. Her nausea and vomiting of course were due to the baneful effects of alcohol, her neuritis also, and the fœtal movements were, no doubt, peristalsis of the bowels, flatus, etc. This case, too, illustrates in a marked degree the efficiency and great learning of some of our modern midwives.

Value of Ignipuncture, in the Treatment of Hypertrophied Cervix Uteri.—The length of time occupied by the usual routine treatment of hypertrophied cervix uteri can be considerably shortened by the judicious use of ignipuncture. The usual plans of treatment, namely, tampons of glycerine, copious syringing with hot water, painting the cervix with Churchill's tincture of iodine, etc., occupy a very considerable time, which treatment (unless the patient is willing and able to pay for) "is better kept in the breach than in the observance." Superficial firing by caustics or smoldering pieces of carbon (held in contact with cervix by forceps) is not sufficient in well-marked cases of chronic hypertrophy, at least to obtain the result wished for within a reasonable time; and having seen the good results of ignipuncture in enlarged tonsils, I have given it a trial, and can recommend it as a useful adjunct in these cases.

A thermo-cautery of small size and fine point (Paquelin's) will be found the best, but those who do not possess this valuable instrument can obtain equally good results with a copper rod sharp at the point and a solid bulb about half an inch from the point, so as to retain the heat while the necessary number of punctures are made through a wooden cylindrical speculum. This cautery can be heated in an ordinary spirit lamp till red-hot, held in the tissue for a few seconds, when each puncture—¼ inch—is made, and then withdrawn. There should be no bleeding observed if the operation is properly done, such being caused by the cautery being either too hot or to cold.

My practice is to blow in a little boric acid (with my vaginal insufflator) over the punctured surface, and make no examination for a week, when the operation can be repeated if necessary.

I have also found ignipuncture of considerable value in lacerations of the cervix when hardly bad enough to demand Emmet's operation. Very little pain, if any, is produced unless the operator is unwise enough to allow the patient to observe the preliminaries.—Alex. Duke, M.D., *Br. Med. Jour.*

WEEKLY MEDICAL REVIEW.

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Compensatory Hypertrophy of the Sexual Glands.

The question of compensatory hypertrophy of the various glands is one of interest from many points of view. Prof. Ribbert, of Bonn, (*Virch. Archiv.—Deutsch. Med. Zeit*). has been making some investigations in this direction, and says that while we are pretty well informed concerning compensatory hypertrophy of the kidneys, through the labors of various authors, we know but little of this process in other glandular organs. The hypertrophy of one testicle after removal or atrophy of the other is a disputed question; there is no information at hand regarding the ovaries or mammæ. By experiments and reasoning over the matter Nothnagel arrived at the conclusion that a compensatory hypertrophy of the testicle does not occur, and indeed, is not necessary in the interest of the function. Ribbert went over the same ground as Nothnagel and came to the conclusion that the latter's experiments afford no evidence against the idea of a compensatory hypertrophy of the testicle but rather tend to support such a theory. Ribbert then gives his experiments in detail, concerning hypertrophy of the mammæ, ovaries, and testicles in rabbits and guinea-pigs. In ten experiments with the testicles of rabbits he got the uniform result of hypertrophy of one testicle after removal of the other. The hypertrophied testicle in several cases reached twice the size, and in one case six times the size, it had previously had, and was found to be due to an increase of the seminal tubules in length. The results were not so positive in the case of the ovaries, in which an increase of size was not always observed. He found, however, in removing one ovary of an animal and using another normal animal for the purpose of comparing the two, that in the first ani-

mal the primordial follicles are produced in much greater numbers than in the other animal, but that the development of the ova does not progress so rapidly. Investigations into the state of one mammæ after the removal of the other lead to the belief that the remaining organ increases in size. In a number of animals the mammæ attained double or treble the size of the mammæ of the animal retained for comparison. In the younger animals the hypertrophy was chiefly in the tubular portion of the organ, there being an increase both in length and breadth; in the older animals the alveoli also increased in size. In the animals in which the remaining mammæ was functionally active during the period of lactation, the organ became much greater in size through the increase of the alveoli in number and size.

The Treatment of Indolent Ulcers With Tin Plates.

Among the most tiresome and unsatisfactory conditions which the physician is called upon to treat is the indolent ulcer of the leg, and those who have much of this class of work to do will welcome anything that promises to be of service. Dr. E. R. Moras, of Cedarburg, Wis., in *Medical News*, highly commends the treatment of such cases by applying tin plates; though the idea is not strictly new or original, yet it will prove novel to many. Dr. Moras generalizes the various methods of treating indolent ulcers as follows:

1. The moist treatment: Ointments, pastes, washes, wet antiseptic dressings, etc.

2. The dry treatment: Iodoform, iodol, boric acid, oxide of zinc, bismuth, and other powders.

3. Compression: Flannel bandages, rubber bandages, adhesive plaster, and silk elastic stockings.

These may be considered the usual methods. In addition rest of the part is sometimes enforced.

4. Skin grafting: Small grafts repeatedly applied, or large grafts, after the method of Thiersch.

5. Transplantation of a flap.

6. Tin-plate treatment.

Comparing the last method with the first three, he claims that it is more certain and satisfactory, and gives quicker results, and that it is simpler and more generally useful than the fourth and fifth methods. Of a number of cases so treated he gives the history of two, one which had existed for two years, and failed to respond to any of the ordinary methods of treatment, but healed rapidly under the use of tin plates, and the other, a somewhat similar case, which recovered while the patient continued to carry on his usual avocation.

In treating with tin plates the following are required: 1-1000 bichloride solution, oiled silk or rubber protective, common sheet tin, surgeon's adhesive plaster, dressing materials and bandages.

A piece of tin is cut with heavy shears to fit the ulcer, and large enough to overlap the surrounding skin one-fourth of an inch, and the sharp edge is slightly everted. This with a piece of silk or protective of the same size is placed in the bichloride solution, with which, also, the ulcer and surrounding surface are washed; the protective is placed over the ulcer and over it the tin plate, which is firmly fixed in position with adhesive strips, in such a manner as to insure uniform pressure. The strips should not encircle the limb, as that would impede the circulation. Only a light gauze dressing is necessary, and this latter may be removed as often as needed after washing the plate and skin free from discharges with warm water, or an antiseptic solution. No preparatory treatment of the ulcer is required, unless the granulations are much elevated above the skin, in which case they may be levelled with lunar caustic. The first dressing should be removed on the fourth or fifth day, when it will be found to show signs of physiological activity, although its size may seem larger, owing to the effects of the pressure. The granulations will be seen to be new and healthy, and cicatrization rapidly advances from the borders of the wound.

Dr. Moras believes it advisable to reapply the tin plate for a week after the ulcer is entirely healed, until the skin becomes firmer. Afterwards, of course, an elastic stocking may be worn, if thought best. In order to meet the varying requirements of the case as the ulcer lessens in size, the tin plate should be trimmed off in proportion, care being taken to always wet the edges. The first few dressings are made at intervals of four or five days, but afterwards changes will seldom be necessary oftener than every eight or ten days.

The tin plates have given most satisfaction in varicose and other ulcers about the leg, in ulcers about the hands, feet, arms, and in amputation stumps. His explanation of the manner of action of the tin plates is given as follows:

"Some of the peculiarities of these ulcerations are: (1) That the granulations are raised above the level of the adjoining skin, which cannot creep over them; or, (2) the granulations are depressed below the skin, and lack the vitality necessary to fill the hollow; or, (3) they are constantly bathed in a profusely foul discharge; or, (4) they are wanting in the proper stimulation that would enable them to accomplish their physiological purpose. It would seem that the tin plate remedies these defects in two ways, namely, as a stimulant and as a compressor. Being a smooth foreign body it acts as a gentle stimulant, and, by compression, it prevents profuse oozing, and keeps the granulating surface to the exact level of the skin, or the skin to the level of the granulations, and thus affords the epidermis an opportunity."

The Collodion Dressing.

Collodion is a substance the value of which in surgical dressings does not seem to be properly appreciated by the mass of the profession; at least, such is the only inference to be drawn from the fact that it is seldom

employed in preference to other modes of dressing. It is frequently employed by oculists in sealing up the eye after operations, but has not been much employed in the ordinary operations of minor surgery.

Dr. Wm. S. Gottheil, in the *International Journal of Surgery*, calls attention to its application to all ordinary clean wounds, in such a manner as to hermetically seal them. Among these may be mentioned incisions for the enucleation of small tumors, caseous glands, etc.; fresh incised wounds, contused wounds that have been thoroughly cleansed, the punctured wounds of compound fractures, etc. It is especially advantageous in small dressings about the head and face.

The materials to be used are absorbent cotton and collodion, and they are employed as follows:

The wound having been thoroughly cleaned and asepticized, the surrounding skin for a space from one to two inches is treated in the same manner. If the part is a hairy one, the same area must be closely cropped, or, better, shaved. Whatever in the way of sutures may be necessary, is now applied; and, after another cleansing, iodoform or iodol is dredged fairly thickly over the wound.

A very thin layer or "fluff" of absorbent cotton, simple or borated or iodoformed—as you choose, is now applied. It should stretch about half-way from the wound to the border of the surface which has been prepared for the dressing. With a camel's hair brush the flexible collodion is put on the cotton, which is brushed down, as it were, upon the wound. The thin cotton layer melts down; in a moment the collodion has set; it adheres firmly to the surface of the wound and to the skin; and your wound is covered.

Layer after layer of thinly spread absorbent cotton is now added—each one overlapping its predecessor slightly, and taking firm hold of the skin. Two to six or more layers, as may be deemed necessary to protect the wound, may be employed.

The dressing is painless, except for a slight smarting at first, from the ether. It is permanent, and may be left for a week. It is also self-retaining, and last, but not least, it is anæsthetic. The dressing is semi-transparent, and is invisible at a short distance if only a few layers are employed; if more are employed a greyish-white coating is formed, which is not conspicuous.

It it is desired to remove the dressing to take out sutures, or for any other purpose, the edge of cotton collodion film is lifted with a dressing forceps, and the entire mass comes off in one piece, with the aid of a little warm water. One thing to be borne in mind is that the wound must be clean as possible, and if sutures are used to unite the edges of the wound they must be absolutely sterile.

Unconscious Parturition in a Primipara.

The *Brit. Med. Jour.* reports a case taken from the *Arch. de Tocologie* which is highly important and possesses the greatest interest, both obstetrically and medico-legally. Cases of alleged infanticide are not uncommon, in which a newly-born infant has been found dead in a vault, and it is often offered as a defense that the act of parturition was mistaken for that of defecation. This, even in a primipara, who was supposably ignorant of the sensations and pains connected with parturition, has always seemed to many an explanation that was far from plausible. The case just reported may tend somewhat to guide opinion in the opposite direction. It is that of Dr. Brunon, and the subject was a married woman, æt. 22 years, who had a troublesome cough one day, shortly before term, which was accompanied by increasing pains. At 11 o'clock in the evening the patient endeavored to defecate, and spent over an hour in the closet, believing that her pains signified painful defecation; she then went to bed. At 1:30 o'clock she woke up, feeling a desire to defecate, with lumbar pains such as she had felt before when constipated. As she rose to go to stool a sharp lumbar pain occurred, and she felt something between her thighs; which, on handling, she found to be the head of her first born, much to her surprise. She declared to Dr. Brunon that the pains were entirely lumbar, and that there were no colicky sensations or severe expulsive pains, which latter are usually so severe in primiparæ. She stated that she had a strong desire to defecate, and that the child might have been born in the pan of the closet, without her knowing anything of the state of affairs until the moment of delivery. She was an intelligent, well-educated woman, free from any neurosis. This case may be assumed to prove that in an inexperienced primipara the child might be born into a closet without any intention of infanticide.

The most remarkable case of painless parturition on record is that of Tarnier, in a Canadian woman, who occasionally dropped a baby on the ground, at term, without noticing it. Another case is that of Howard's in which labor took two hours; the patient was reading a book up to a quarter of an hour before delivery, which occurred after some straining, not sufficient to make her cry out.

A Remarkable Case of Hermaphrodism.

Dr. Charles N. Dixon Jones, of Brooklyn, N.Y., reports a very unusual case of hermaphrodism in the *Med. Rec.* The patient is æt. 21 years, and has been reared as belonging to the female sex. She first consulted Dr. Jones in December, 1888, for a double inguinal hernia and amenorrhœa. The hernia was of the ordinary type of inguinal hernia, and at times very painful, so much so that she could not attend to her work. The patient had never menstruated nor had any symptoms of menstruation, and there was no history of vicarious menstruation. One of her sisters had also never menstruated, and there is congenital absence of the uterus. The patient is described as follows:

Large in stature, and has the appearance of a handsome, well-formed woman; thorax, pelvis, and body generally were of the feminine type; mammæ and nipples were fairly well developed; the voice is feminine, though the larynx is more protuberant than is usually found in the female. The external sexual organs were those of a female, and in general well formed, the clitoris and nymphæ were perhaps smaller than natural, and the orificium was rather contracted, and partly shut by a hymen. The fossa navicularis was distinct and the vagina normally situated, but extremely short and narrow, not more than two inches in length, and at this upper extremity terminated in a blind cul de-sac, without any trace of the uterus or of the tubes or ovaries.

Even under ether and by combined vaginal and abdominal examination there could not be detected the least tumor, or swelling, or anything resembling the uterus, or ovary, or the Fallopian tubes; but in the region of each external abdominal ring there was a hard body which was then judged to be a prolapsed ovary. These bodies were extremely sensitive on pressure, and they were irreducible. The pain in these enlargements was becoming more distressing and more intolerant; the patient was very desirous of having them removed or being relieved of the herniæ, and evidently it was best for her welfare and comfort, so an operation was advised and performed. The bodies were removed, and on examination by Dr. C. Heitzman, they were pronounced to be testicles.

In performing the operation it was found advisable to make a median laparotomy. Through this opening an internal examination was made, but no trace of the uterus or other sexual organs was found. Nothing but a fibrous cord could be felt running downward and backward from the internal aspect of the internal abdominal ring and becoming lost in the floor of the pelvis. The patient made an easy recovery, and says that she has been in better health and more comfortable ever since.

MEDICAL ITEMS.

A Simple Ointment for Pruritus.—Balfour reports that he has almost never failed to obtain prompt relief, in cases of pruritus of the anus and vulva, from an ointment containing 80 grains of calomel to the ounce of vaseline or other unguent.—*Lancet-Clinic.*

Saccharin in Russia.—Following the example or France and Italy, the Russian Medical Council has prohibited the use of saccharin as an article of food. Henceforward the substance will be dispensed by apothecaries and druggists only on medical prescription.

We have been the recipients from the Antikamnia Chemical Co., of St. Louis, Mo., an Antikamnia "Common Sense" clinical thermometer (self-registering) and we must say that it meets with our hearty approval. Besides the regular Fahrenheit scale, it also displays the "normal" scale, indicating the number of degrees of fever.

Eczema in Children.—Use a 5% lanolin and bismuth salve, thickly spread on linen and bandaged upon the part morning and night. Lanolin forms but a small amount of fatty acids on the skin, while vaseline and other fats readily produce fatty acids which, to the child's sensitive skin, are very irritating.—*Dixie Doctor.*

Sulphonal in Diabetes.—Caserelli reports from the Clinic of Prof. Grocco that the employment of 30 grains of sulphonal daily in diabetes produced marked diminution in the quantity of both the sugar and urine. He remarks, however, that too large doses of the sulphonal will produce disagreeable symptoms, such as vertigo and excessive somnolence.—*Med. News.*

A Royal Teetotaller.—The King of Samoa is determined that his subjects shall be sober, if they are not free. He has just issued a proclamation to the following effect: "No spirituous, vinous, or fermented liqours, or intoxicating drinks whatever, shall be sold, given, or offered to be bought or bartered by any native Samoan, or Pacific Islander resident in Samoa, to be taken as a beverage." Any breach of this law is to be visited with heavy penalties.

A New Cure for Spasm of the Glottis.—Spasm of the glottis is notoriously a very alarming condition, and one which it is often as difficult to relieve as the symptoms are urgent. Sir Morell Mackenzie gives a good "tip," and one worth remembering. The spasm is the result of a reflex, the starting-point of which varies in different cases, and he has found, as the result of experience, that a pinch of snuff, judiciously sniffed up the nostrils, will, by causing another and violent reflex, cause the former to subside.—*Med. Record.*

Guiac as a Laxative.—Dr. Murrell has employed resin of guiac in 10-grain doses as a purgative, with excellent results. The amount named is rubbed up into a confection with one drachm of honey, and this he has employed with excellent results not only as a purgative, but in the treatment of rheumatism, sciatica, tonsillitis, dysmenorrhœa, and other affections. It is supposed that if the drug were triturated with cream of tartar or sugar of milk, it would be just as efficacious in smaller doses. It acts as a purgative or laxative, according to the size of the dose.

Christian Science Goes Marching On, as shown by the following extract from the *Republic*:

Sioux Falls, S. Dak., Jan. 1.—Justin A. Pettigrew, brother of Senator Pettigrew, died at 1 o'clock last night. He was 45 years of age and leaves a wife and daughter. He had been ill since Thanksgiving, and his

wife, being an ardent believer in Christian Science, persuaded him to accept that treatment. Last week relatives living in the city telegraphed to Senator Pettigrew in Washington to come home at once. As soon as the Senator arrived, he cleared his brother's house of the theorists, and called in several regular physicians, who declared yesterday that it was too late. The Christian Scientists, on the other hand, assert that had their treatment of the patient been left alone he would not have died. There is considerable feeling in the city over the circumstances. Senator Pettigrew is greatly incensed at the Christian Scientists.

Poisoning by Filicis Maris.—Up to the present three cases of poisoning by this drug have been reported, two of them proving fatal. A recent case reported by Hofman (*Wien. klin. Wochenschr.*), is that of a little girl, æt. 5½ years, who was given 7.5 grams of the ethereal extract of filicis maris, for the removal of a tape worm. At the end of one and one-half hours deep sleep ensued, which was followed at the end of three hours by convulsions and death. The post-mortem examination was negative; it simply showed a pre-existing miliary tuberculosis of the lungs and abdominal organs.—*J.A.M.A.*

Where to Puncture in Paracentesis.—Prof. Keen selects the following points for the passage of the needle in the operation of paracentesis. In paracentesis thoracis the place of election is between the eighth and ninth ribs in the line of the axilla. In paracentesis abdominis the needle should enter in the middle line, the patient being in a sitting posture, and the bladder having been previously emptied. In paracentesis pericardii the patient should be in the recumbent posture, and the needle should enter at the fifth interspace in front, due regard being had for the heart and large vessels.—*College and Clinical Record.*

A Simple Method of Removing a Needle.—I think it may be of service to record a simple means by which I obtained the removal of a broken needle from the heel of a girl, æt. 12 years, whom I saw lately walking about on her toes to avoid her right heel, into which a needle had been broken, touching the ground. The buried end could be felt, but any pressure led to its further entry. I directed her to wear a large thick corn-plaster around the spot, with a little wet cotton-wool in the center, and to tread freely on the heel. Within a week afterward she showed me the needle, which had protruded, and she had easily withdrawn it. Thus no wound was made, and no scar left to be a tender spot on the plantar surface.—Chas. Steele, M.D., F.R.C.S., in *Brit. Med. Jour.*

How it Feels to be Killed by Electricity.—Now that so many of our citizens are getting shocked from the numerous "dead" wires which ever and anon fall gently and unexpectedly on their heads as they walk the streets, it may be well to know what sensations may be expected under such circumstances. They are thus described by a lineman who was recently caught in the wires on Chestnut Street:

"I climbed up the pole on the corner of Fourth and Chestnut to untangle a Western Union wire from another wire (a fire-alarm wire, I think it was) that had fallen across it. I reached the top of the pole and threw my leg over one of the cross-trees, and took hold of the Western Union wire to shake the other off. As I did so I felt my hands close around the wire like a vise and a shock pass through me that deprived me of strength and sight, but left me conscious to the worst agonies I ever dreamed it possible for a man to endure. I couldn't let go of the wire, and so, with my leg over the cross-tree, my hands clutching the telegraph wire and my body lying across a guide wire, upon which I had fallen, I hung until my friends came to my assistance and let me down. I was only there a few minutes, they told me, but it seemed to me to be hours. I could feel myself vibrating in every fiber, and the buzz of a dyamo sounded in my ears as plainly as though I was standing beside one. Every drop of blood in my veins seemed to be churning, and the agony of the sensation was beyond description. I am now feeling very weak, and my bones ache, as though I had been beaten with a club."

SOCIETY PROCEEDINGS.

ST. CLAIR COUNTY, ILLINOIS, MEDICAL SOCIETY.

Regular meeting at Belleville, Dec. 4, 1890, Dr. H. C. Fairbrother in the chair.

Dr. Julius Kohl, of Belleville, reported two cases of

Stricture of Pylorus,

and showed specimens. (See p. 27.)

Discussion.

Dr. Booth.—There is aways great difficulty in a discriminating diagnosis between cases like those related by Dr. Kohl, and the various disorders of the stomach. It was an easy and very flexible diagnosis to write on the card at the head-board "gastric irritation." We may have that in any disease, or no disease at all. The doctor might have explained to the patient that he would make a more complete and exact diagnosis after post-mortem examination. This would have been more scientific, if not altogether cheerful to the patient—not that I am opposed to these examinations at all. Far from it. They are the only light to find our way in the dark road of stomach disorders. No man would work harder or go farther than I to make a post-mortem. Many a time I have ridden fifteen and twenty miles on horseback to do this work, and for no other reward than the light it might throw on some obscure disease. Twenty years ago a few of

us made post-mortem examinations popular in southern Illinois by illustrating to the people the wonderful advantages resulting therefrom. Of later years interest in this important branch of study has somewhat died out in this neighborhood, and I am glad to see Dr. Kohl bring these numerous specimens here to-day and present them to this society, in connection with all the symptoms which accompanied them.

I would like to learn from Dr. Kohl how he uses raw onions in diagnosing ulceration of the stomach. If a person has eaten onions I think I can diagnose the fact even for some days afterward, but I never used them as an aid to diagnosis.

Dr. Kohl.—If you have a case of suspected ulceration, direct the patient to eat some finely chopped onion. If ulceration exists, a burning sensation will be produced, as if caustic were applied.

Dr. Rembe.—I am satisfied that patients are dying every day from stomach disorders, the nature of which is not understood. The medical profession is not more to blame for this than the public who are so bitterly opposed to post-mortem examinations. Of course, I should not favor promiscuous post-mortems, merely to satisfy a curiosity as to what a patient died of, but, taken in connection with all the previous symptoms, it forms a part of the history of the case, and aids us in the diagnosis and treatment of similar cases. Doubtless many patients die from lack of knowledge on these points—knowledge that might be gained by carefully made and recorded post-mortems.

Dr. Rayhill.—The symptoms in the cases reported were the symptoms of cancer, but the post-mortems show the growth to be non-malignant. Ulceration of the stomach is attended with occasional vomiting of blood, tenderness on pressure and sometimes pain, but cancer is always painful. But tenderness and pain do not always point to either cancer or ulceration, as we may have one or both these symptoms in the various minor disorders of the stomach.

Dr. Fairbrother.—The chief symptom in Dr. Kohl's cases was inability to retain food, inability of the most persistent kind, and that indicated stricture of the pylorus. The patients were otherwise robust, healthy people, with no cancerous history or appearance, and comparatively young in age. This was sufficient to exclude cancer. When cancer sets in, it does not stop with the stomach or any single part; it takes possession of the entire man. Its goes up and takes its seat in his countenance; his eyes are dull, his cheeks are sunken, his skin is dry, and withered and yellow. His appetite fails; his secretions are stopped, and the whole physical economy is marked by the blighting influence. These cases present symptoms pointing to strictures from morbid growths, but there were no symptoms to indicate that these growths were malignant.

Dr. Bechtold.—I look upon this peculiar color of the skin as the best aid in diagnosing as to whether or not the disease is malignant. I can not describe this color; it is not yellow, it is not green; it is simply cancerous color. When you have seen it in a number of cases you will recognize it; you will learn to know its face like the face of an individual. Pain cannot be relied upon as a symptom in such cases as these. It is too inconstant a factor. One person may have pain, and another with the same ailment may have none.

Dr. Moore reported a case of

Diabetes.

I have under my care at present a patient suffering with diabetes. His passage of water now is from two to three gallons daily, with a specific gravity of from 1040 to 1050, and presenting a trace of sugar by the usual tests. I have tried the usual remedies, dietary and therapeutical, but so far have realized no good results. Should like to hear from members on the subject.

Dr. Kohl.—In reply to Dr. Moore, I would say that this subject is one that has been of great interest to me during the year past, and I am glad to say, further, that I believe I can give him a remedy for his patient. About a year ago, I had in the hospital a very bad case, in which all remedies seemed of no avail. I happened to meet Dr. Illinski, of East St. Louis, and related the case to him. He advised me to give bromide of arsenic, and assured me that in his hands this remedy had proved successful in a number of cases. I followed his advice, and to my great surprise and gratification my patient began to improve immediately, and went on to a speedy and perfect recovery. Since then I have used it in a number of cases, and am fully convinced that it is the most valuable remedy we have in this disease. I have it prepared by my druggist, and give it in about the same dose as I would Fowler's solution.

Dr. Wiggins.—This is no doubt the best therapeutic agent now known for diabetes. Dr. Illinski has the record of a large number of cases said to have been successfully treated with it. But I believe he depends about as much upon his dietary treatment as upon the medicine. Gluten flour, from some eastern house, is undoubtedly an elegant diebetic food. With a properly regulated diet and the bromide of arsenic given in such doses as will be easily borne, many cases of this dread disease may be improved, and some cured.

SELECTIONS.

ON THE VALUE OF THE "HODGE" PESSARY

Without at all agreeing with those who think that the most common primary cause of female complaints can be found in uterine displacements, I still consider that there is a large percentage of such cases to be met with due to that cause, and it is a most fortunate matter that by the judicious use of a Hodge pessary we are enabled to give more relief in cases of retroflexion and retroversion (the most common forms of uterine misplacement) than by any other means with which I am acquainted.

This pessary is the original, from which the numerous so-called improved uterine supports are taken, and

it will seldom chance that those who fail to give relief with a properly-fitted "Hodge" will be fortunate enough to succeed with any of the "legion" uterine supports now sold by the instrument-makers.

Emmet says, very forcibly on this point, in his "Gynæcology," p. 314: "I have never known a practitioner who was able to fix a pessary properly who was not fully satisfied at the benefit derived from its use." The position of the patient during the introduction of the pessary is most important, and the genu-pectoral (affording, as it does, the favor of gravitation to the uterus, in addition to helping greatly to retain that organ in the desired place after replacement till a suitable pessary is chosen and placed *in situ*) should be the position, as a rule, adopted unless contra-indicated by some pectoral or cardiac lesion. *In no case should a pessary be introduced till the uterus has been replaced as nearly as possible in its normal position.*

How often is one blindly inserted while the patient lies on the side or back, probably after the uterus has been rudely rotated by the sound, or the impaled organ is held firmly forward while the pessary is forced into position, being passed over the handle of the sound as a guide. This can always be avoided by adopting the position I speak of, and using my uterine repositor, which, acting *externally to the uterus*, dispenses with the use of the sound altogether, except for diagnosis.

There are cases on record where the womb has been perforated by that instrument, and this danger should be remembered when efforts are made to remedy a displacement by its means, as still recommended by some of the latest text-books on the subject. *In my opinion, neither the uterine sound nor any other instrument in the uterine cavity should ever be used to remedy a malposition*, but should only be employed for diagnostic purposes, for which purpose I believe the sound was originally designed.

I have remarked that in women with broad pelves there is much more tendency to misplacement of the womb; so that the value of this pessary, by affording fixity and a considerable amount of rest to the organ, is certainly not the least of its many advantages. There are some who maintain that it is quite impossible to cure a chronic misplacement by means of pessaries. For my own part, however, I am convinced that, if the rules which I invariably follow in these cases were generally adopted, the permanent curability of displacements by the proper use of the pessary would be universally admitted. The points to which I attach most importance in this connection are, *first*, the selection of a suitable instrument; *secondly*, its judicious application; *thirdly*, and above all, *its graduated change for one slightly longer at regular intervals*; then, by measuring from top of posterior fornix to fourchette at each change of pessary the uterus will be found to be gradually restored to its normal position. When this is found to be the case, I do not at once remove the last pessary worn, but advise the wearing of it to be continued for another short period.

I am a firm believer in the Hodge lever-action when properly adjusted, and this can be put to ocular proof by raising the posterior wall of the vagina with the duck-bill speculum, when, if the patient be in the proper position, and the pessary of correct size and shape, and held mainly *in situ* by the lateral pressure of vaginal walls, it will be seen to move forward and backward by each inspiration and expiration of the patient.

It is this valuable action of the pessary which slowly but surely raises the body of the uterus, and, by taking the weight and strain off the ligaments, allows them to regain their natural tone and elasticity—a point almost as important as the complete reposition of the organ itself.

The periodical change of pessary till the uterus retains its normal position is, to my mind, an important point in the treatment, the neglect of which rule has (in some cases, at least) caused this valuable instrument to be unjustly censured. I have, on several occasions, heard patients complaining of the presence of a pessary, which, *if properly adjusted, should never be the case*, and stating they had been assured by the physician who introduced it that the pain and discomfort complained of could not possibly be due to that cause, when, on examination, the instrument has been found to be at fault, either by being too long or improperly curved, and so, by pressing on the neck of the bladder or obstructing the circulation in the soft parts, exemplified, in a marked degree, "the vicious action of the Hodge."

Well may Dr. Emmet say, in his well-known work, "The practitioner, to become an expert in fitting a pessary that may do no harm, must have a decided mechanical talent."

One of the most valuable points of advantage in the use of the pessary, to my mind, is that, even should the misplacement take a considerable time to rectify *permanently* (which time can be roughly calculated from history of case and date of primary cause), the strain being taken off the ligaments, and, in many cases, the pelvic nerves as well, it is a pleasure to see the patient, who a short time before limped into the consulting-room, bowed down with pain, enabled to leave it before long with marked relief to all her symptoms, again erect in posture, and showing beyond controversion the invaluable aid to be rendered by a properly-adjusted, well-fitted Hodge pessary.—Alexander Duke in *Satellite*.

LACERATION OF THE CERVIX UTERI.

One often hears it said that a laceration of the cervix uteri is not of any importance, and does not require any treatment. Although this is undoubtedly often the case, and it is a fact that a tear in the neck of the womb is not to be sewn up simply because it is a tear; yet there are cases where this operation, usually known by the name of its originator, Dr. Emmet, is undoubted-

ly of the greatest service. It may not always be necessary to put in stitches; but, that some treatment is often required for such cases is, it appears, borne out by the writings of perhaps the most conservative of gynæcologists, the late Dr. Matthews Duncan; though he was evidently in favor of the use of the zinc-alum stick of Dr. Skoldberg. This plan of treatment is often of service, and is most likely to be sufficient in cases of erosion and chronic endo-cervicitis, where there has not been an extensive tear. In what circumstances is Emmet's operation to be recommended? Again I would quote Dr. Duncan. He writes: "I have said that chronic catarrh is important, and have, in concluding, to add that it is advisable you should not go on indefinitely treating it. If, after two or three trials, which may each extend over several weeks, you fail to effect a cure, you had much better give up farther meddling in the matter. You do no good to the disease or to the patient; you may, indeed, by frequent and prolonged irritation, produce cancer." Here we have, almost in a single sentence, a description of those cases of laceration of the cervix which are to be treated once and for all by Emmet's operation.

The symptoms are of a two fold nature. They are owing either to the actual raw and eroded surface, or to the more remote results due to the irritation set up by this unhealthy or cicatrized surface. Of the first we have discharge, usually that which goes by the name of whites; though sometimes it may be more or less bloody, and there is often a feeling of heat and itching. When we come to consider the more remote symptoms, this difficulty arises, viz., that we have to discriminate between the conditions set up by the tear and those which may have resulted from the same cause which gave rise to the tear; as, for example, laceration of the perineum and stretching and relaxation of the whole supporting tissue of the pelvis. It is not difficult to say what are the symptoms one would naturally expect to find—any arising from spreading of the irritation at the cervix through those organs in connection with it. It appears to me to be more than probable that laceration of the cervix may have much to do with many cases of salpingitis. This view I advocated some years ago, and I have cured, in one instance at least, a well-marked case of salpingitis by repairing a badly torn cervix. The alternative line of treatment would have been to remove the uterine appendages; but it seemed to be very doubtful whether such a procedure would have resulted in a cure, partly on account of the patient's surroundings, and partly on account of the extremely bad condition she was in. Five weeks after the operation no tube could be felt, and a few months afterward the patient had improved so much that her dresses had to be let out five inches!

The influence which a laceration of the cervix with erosion of the lips may have in the production of tubal disease has been too much overlooked, and it is worthy of some attention.

It is not to be expected that the performance of Emmet's operation, even when that is desirable, will cure every case where there is pelvic trouble, for the irritation set up by the laceration may be only one cause of the condition, and we have to look to the woman and cure her, and not devote our attention to one little part of her and cure it; as, for example, it would be foolish to sew up a lacerated cervix and leave a retroversion alone; whereas, a tear, which has been the exciting cause of a displacement, by increasing the weight of the womb and thus destroying the balance between the amount of support, *i. e.*, the perineum, pessary, pelvic tissues, etc., and what is to be supported, *i. e.*, the uterus, may, if repaired, allow so much reduction in size and weight of the womb as to allow of its being kept in position with a pessary.

The cases, therefore, where the operation is to be recommended are those in which the patient complains of symptoms apparently referable to the injured condition of the cervix, and where several applications of iodine and carbolic acid with iodine to the outside of the cervix, or something of the kind, do not do good, or when a favorable result is only temporary. If the operation becomes necessary the time spent in this treatment will not have been lost, as the cervix will be in a better state for interference.

With regard to the operation itself, the mistake is often made in this country of drawing the cervix down to the mouth of the vagina, or outside of it. Whenever this is done, it must happen occasionally, perhaps once in a hundred times, or perhaps oftener, that some overlooked inflammatory condition outside the uterus and in the cellular tissue is stirred up, resulting in perhaps a long and severe illness. It is as easy, with a little practice, to operate when the cervix is in its natural position as when it has been dragged down to the vaginal outlet. One sees also with greater accuracy exactly how much tissue requires to be removed, and how much paring has to be done.

After the operation there is little objection to the patient getting up to pass water, should she be unable to do it in bed, although, on the whole, it is better she keep lying down for two weeks, so as to allow the uterus to regain its natural size. The sutures should be left in for not less than ten days.

In conclusion, I would lay particular stress on this point, that it is the severity of the symptoms, and not the depth of the laceration, which has to be taken into consideration when advising for or against Emmet's operation on the cervix.—Skene Keith, M.B., in *London Medical Press.*

WHAT EXPERIENCE TEACHES ONE TO UNLEARN.

One of the most respected gynæcologists of this country, Prof. William Goodell, in *Med. Record,* has recently stated that "every earnest worker in any field of the inexact sciences finds himself compelled to unlearn

as well as to learn," and on this basis he communicates a sketch of a number of things, chiefly traditional teachings, which he has himself, in his own experience, learned to unlearn. His summary, of course, relates to the special branch in which he has been a distinguished teacher and practitioner; but many a general practitioner, if he were as honest and candid, could teach his professional brethren similar lessons. Among other things cited by him are the following:

He has learned to unlearn the grandmotherly belief that the climacteric is in itself an entity, and that, as such, it is responsible for most of the ills of matronhood, and especially for that of menorrhagia.

He has learned to unlearn that anteflexion and anteversion in themselves—that is to say, as displacements merely, and without narrowing of the uterine canal—are necessarily pathological conditions of the womb.

He has long since abandoned the idea cherished by that class of waistless and witless nurses, now happily obsolescent, that the parturient woman is to be swathed like a mummy and to be kept as immovable.

He expresses his disbelief that mammary abscess comes from "caked" breasts, or from breasts over-distended from a secretion of milk too great for the infant's needs. Mammary abscess, in the suckling woman, comes, in his opinion, from cracked nipples, and from cracked nipples alone.

He has wholly freed himself from the belief that cellulitis is at the bottom of most female ailments, and that the hot-water douche is its cure-all.

He has learned to unlearn the teaching that woman must not be subjected to a surgical operation during her monthly flux. Our forefathers, from time immemorial, have thought and taught that the presence of a menstruating woman would pollute solemn religious rites, would sour milk, spoil the fermentation in wine-vats, and much other mischief in a general way. Influenced by hoary tradition, modern physicians very generally postpone all operative treatment until the flow has ceased. But why this delay, if time is precious and it enters as an important factor in the case?

Long ago he came to the conclusion that the womb, like the nose, has its own secretions; and that, because the cervical canal is stopped up with mucus, it is not to be treated any more harshly than a stopped-up nose. This nasal analogy led him soon to think that even uterine catarrhs are not of such paramount importance as to merit heroic treatment, and that metritis and endometritis, in so far as symptoms are concerned, are often idle words.

He has learned to unlearn the idea—and this was the hardest task of all—that uterine symptoms are not always present in cases of uterine disease; or that, when present, they necessarily come from the uterine disease. Seemingly urgent uterine symptoms may be merely nerve-counterfeits of uterine disease. He has, therefore, long since given up the belief, which with many amounts to a creed, that the womb is at the bottom of nearly every female ailment. As an outcome of much that he has learned to unlearn, Prof. Goodell has arrived at this very short gynæcological creed: "I believe that the physician who recognizes the complexity of woman's nervous organization and appreciates its tyranny, will touch her well being at more points and with a keener perception of its wants, than the one who holds the opinion that woman is woman because she has a womb."—*College and Clinical Record.*

STUDY OF LABOR, BY MEANS OF FROZEN SECTIONS.

1. The shortening of the antero-posterior diameters of the bony pelvis by the soft parts is, for the conjugate, at the brim $\frac{1}{2}$ inch, in the cavity $\frac{3}{4}$ inch, at the outlet $^7/_8$ inch; and for the oblique diameter, at the brim almost 1 inch, and in the cavity still more, due to the projection of the obturator internus.

2. The cellular tissue at the base of the broad ligaments is compressed by the sinking down of the uterus after delivery, so as practically to close the abundant sinuses.

3. The peritoneum is, during the second stage, lifted out of the pelvis anteriorly and somewhat elevated posteriorly, returning after labor to its original position.

4. The bladder is in part elevated, so that, while its neck does not change its position, a portion of the organ becomes abdominal.

5. The uterus in the interval between the pains shows a certain plasticity, like the uterus in pregnancy, but with this difference, that, while the uterus in pregnancy molds itself on the spinal column and bony pelvis, the uterus during the second stage molds itself on the fœtus.

6. In retraction, the uterine wall becomes shorter and thicker, but not in the same ratio; while the vertical circumference of the walls is diminished by one third, the thickness of the walls is increased to four times.

7. The lower portion of the anterior uterine wall is thinner than the rest before labor begins; this thinning is increased during labor. A corresponding thin part develops posteriorly. There is, therefore, in normal labor (that is, with no pathological resistance) a separation of the uterine wall into two parts.

8. The boundary line between these two parts persists when no contraction is present, and should therefore be called the "retraction," and not the "contraction" ring.

9. As a deduction from the foregoing, it follows that once a body in the genital canal has passed below this ring, it will no longer have active muscle in the wall of the canal to operate upon it.

10. While the anterior vaginal wall retains, during labor, its usual length and thickness, the posterior extends to more than twice its former length and becomes very thin.

11. The fœtus is elongated during the second stage by the straightening of the spinal column.

12. The flexion of the head becomes, during labor, less pronounced than it was during pregnancy.

13. Rotation of the head takes place before that of the shoulders, and is therefore independent of it.

14. The process of the molding of the head consists in a pushing of the occiput underneath the parietal bones, and a distortion of the plastic head toward its unsupported part.

15. The placenta does not become separated as a result of the diminution of its site during the second stage.

16. The membranes become separated, during the second stage, up to the retraction ring but not above it. —A. H. D. Barbour, M.D., in the *Brit. Med. Jour.*

INDUCTION OF PREMATURE LABOR.

Dr. Ahlfeld gives the results of 118 cases operated upon by himself and his assistants between the years 1871 and 1890. Contraction of the pelvis was the chief indication for the operation (111 out 118 cases).

The method which Ahlfeld considers most effectual is Krause's—that is, the introduction of a flexible bougie into the uterine cavity without rupturing the membranes. The membranes should be ruptured to induce labor only in cases where the mother's life is at stake, or where some dangerous symptom must be met by speedy evacuation of the liquor amnii; the child's chances are thereby minimized. The conclusions drawn from this interesting and valuable paper are as follows:

1. The induction of premature labor maintains its place as a means of saving the child's life in cases of contracted pelvis, notwithstanding the improvement in the results of the Cæsarian section. If in 111 cases only one mother died from the direct results of the operation, 80% made a perfectly normal recovery, and the rest had a more protracted puerperium without any serious symptoms, the result of the operation must be considered good for the mother. If, further, out of 101 children born after the induction of labor in cases of contracted pelvis 60.39% left the hospital well along with their mothers, the result of the operation is also good for the children. In contrast to these results he reports that in 6 cases of Cæsarian section in contracted pelvis done in Marburg, 2 mothers and 1 child perished.

2. Krause's method may be used in private practice, but the chances of a favorable issue are greater in a hospital.

3. Premature labor should be induced as late as possible, in the interests of the child.

4. The lowest limit of pelvic contraction in which the operation may be performed may be placed at conj. vera 7 cm. (2¾ in.).

5. The artificially induced labor should resemble normal labor as far as possible.

Duhrssen's article is very timely. The brilliant results of the improved Cæsarian section have tended somewhat to divert attention from less showy but really more conservative procedures. Cæsarian section undoubtedly has its place, but that place is far more limited than some of its advocates claim. Duhrssen's results show what can be done when systematic and careful examination of patients is made early enough to diagnose pelvic contraction and in suitable cases permit the induction of premature labor. The necessity of medical men perfecting themselves in the techniqe of external palpation and pelvimetry becomes daily more evident.—Translated from *Cent. f. Gyn.*, in *Montreal Medical Journal.*

NEW METHOD OF TREATMENT FOR RETRO-DISPLACEMENTS OF THE UTERUS WITH ADHESIONS.

A. P. Dudley, M.D., in *N.Y. Med. Jour.*, described his present method of surgical treatment for certain forms of the above condition. After a review of the various methods for correcting this lesion recently in vogue, he narrated the details of his operative procedure in a case of diseased ovaries and tubes. He opened the abdomen, broke up the adhesions about the uterus, and then taking the left ovary and tube, he drew them up through the abdominal incision and saw that the fimbriated extremity was open. He then took a piece of No. 27 silver wire, slightly pointed at one end, which he gently passed through the entire length of the tube, demonstrating it as pervious. The ovary, which contained several cysts, was then tapped with a spear-pointed needle by passing the needle directly through the organ and squeezing the water out. T he sacs were then allowed to fill with fresh blood. The tube and ovary were dropped back and the right side was treated in the same manner. An assistant then placed two fingers in the vagina and lifted the uterus as high as possible in the pelvis. The operator was thus enabled to bring the uterus up to the abdominal incision. With a pair of delicate scissors he then denuded the peritoneum from the anterior wall of the uterus, the surface thus freshened being of an oval shape. Care was taken not to go too near the bladder. Then each round ligament was brought up and a portion of the peritoneal covering upon the inner side denuded to correspond with that upon the uterus. With a continuous suture of catgut he then sewed these denuded surfaces together. The sutures were passed deep enough to secure against their cutting out before union took place. The uterus was then dropped back, and the traction upon the round ligaments immediately drew the organ into a position of anteversion, the sutured surfaces lying in apposition to the posterior surface of the bladder. He did not introduce a pessary, preferring to allow the work to rest upon its merits. The advantages of this operation were threefold:

1. It shortened the round ligaments, without sacrificing any part of them, sufficiently to hold the uterus in a position anterior to the perpendicular line of the body.

2. Denuding and firmly fastening the round ligament to the anterior surface of the uterus thickened and gave extra support to the latter.

3. The uterus was maintained in a normal position without fastening any of it to the anterior abdominal wall, a position which he thought nature never intended it to occupy.

This operation presented the following advantages over hysterorrhaphy or Alexander's operation:

1. It corrected the displacements by utilizing the natural supports of the uterus without sacrificing any of them.

2. The proper diaphragmatic action of the pelvic floor was not interfered with.

3. The bladder was not imprisoned and its proper action was undisturbed.

4. There was no chance for intestinal adhesion about the line of suture, for the latter lay in apposition to the posterior surface of the bladder, and adhesion taking place at this point simply elongated the utero-vesical junction.

5. In case of impregnation, the uterus was free to rise in the abdominal cavity naturally.

6. The use of the catgut suture did away with the danger of the formation of sinuses by the ligature.

One of his objects in performing this operation had been to save the ovaries, for he had come to believe that more was taken out than should be. He had operated in the manner described four times, and he thought this was enough to demonstrate that it was possible to attack the cysts in the ovaries and still not have any trouble in the tubes and ovaries after the laparotomy.—*Arch. of Gyn.*

NEPHRITIS WITH IMPAIRED VISION IN PREGNANCY.

Dr. Lomer, in *Cent. f. Gynak.*, read before a recent meeting of the Hamburg Gynæcological Society two cases of this complication which occurred in the same house. A primipara, æt. 33 years, suffered for four weeks from œdema and gradually increasing impairment of vision. For twenty-four hours the movements of the child had ceased, and free flooding, with atypical cramp-like pains set in. Dr. Lomer found the patient very anæmic; the pulse could hardly be felt in the œdematous arms, and the patient was almost blind. The uterus was very tense, the os about the size of a florin; the edge of the placenta could be felt within it. The head presented; the fœtus was clearly dead. The crampy pains were severe, and accompanied by flooding. Turning was performed under difficulty; it proved difficult owing to the tenseness of the uterine walls. There were large clots in the uterus; an eight-months' dead fœtus was removed. The placenta, removed by the hand, was full of white infarcts, and was cupola-shaped in the center, owing to a large area of hæmorrhage. After the uterus had been thus emptied the pulse could again be felt. The urine coagulated completely on boiling, and contained abundant granular and hyaline casts. The œdema suddenly disappeared during the outbreak of a sweat rash in childbed. The albuminuria remained longer, and the impairment of vision was the last to disappear; indeed, it had not entirely gone when the case was reported. On the same day that this case first came under Dr. Lomer's notice, a multipara, living in the same house, consulted him. She was in the eighth month of pregnancy, and complained of intense headache, with defective sight. There was no œdema, but the urine was loaded with albumen, and full of finely granular and hyaline casts. In spite of milk diet and rest in bed, the headache and impairment of sight increased. Dr. Lomer, therefore, induced premature labor. This was done by Schrader's method recently described before the society, that is to say, the abdomen was fomented for five minutes alternately with hot and ice-cold water. In two hours pains came on; six hours later a living child was born. The placenta was healthy. As the uterus emptied, the headache diminished, but was bad enough to keep the patient from sleeping for several nights. The albuminuria disappeared on the fifth day after delivery. The defective vision remained longest, and was still marked when the patient left her bed at the end of a fortnight. The child died of atrophy at the end of a week. Dr. Herschel took both patients under his care for their sight. In the first case there was no retinitis. The disturbance was due to uremia; and paralysis of accommodation, due to the extreme general debility, was present. The second was a marked case of retinitis albuminuria. This is very rare in pregnancy; only three cases have hitherto been observed by Dr. Herschel. The prognosis is altogether more favorable in pregnancy than under other circumstances.

DIETETIC TREATMENT OF DIABETES OF ARTHRITIC ORIGIN.

BY PROF. DUJARDIN-BEAUMETZ.

You will first prescribe the dietetic regimen which is likely to give the best results, along with the lithiated arsenical treatment.

1. Let the patient take before breakfast and dinner 5 grains of carbonate of lithium in a tumbler of Vichy or Vals water; 2 drops of Fowler's solution should be added to each dose.

2. Give after meals, in a little coffee sweetened with saccharin, 1 gramme (15 grains) of antipyrin.

3. Sponge the body all over every day with warm water containing a little *eau de Cologne.* Energetic dry friction with a hair glove after the sponge-bath.

4. Require the patient to rinse the mouth, after carefully brushing the gums, after meals, with the boracic acid mixture above given.

5. Pursue with rigor the following dietetic treatment: A diet exclusively of eggs, meats of all kinds, fowl, game, mollusks, crustaceans, cheese. All green vegetables are permitted except beets, carrots, and turnips.

Urge the free use of fatty foods, such as sardines in oil, tunny-fish with oil, sour herring with oil, pork, butter, *pate de foie gras*, "*rilletes*," bacon, fat, etc. For soups, recommend principally cabbage soups, bouillon with poached eggs, chicken broth, onion soup, mutton broth, clam broth, etc. All these soups should be taken without bread or crackers.

For bread, allow gluten bread, soja bread, fromentine bread; with each meal allow three ounces of boiled potatoes. To sweeten drinks, use pastilles of saccharin. Tea, coffee, mate, kola are permissible.

Prohibit all amylaceous foods, bread, panada, maccaroni, rice, pies and cakes, custards, puddings, sugar, sweetmeats, chocolate, preserves, all fruits.

Milk is forbidden, unless taken in very small quantity. All sauces and gravies containing flour are also forbidden.

For drinks, allow with the meals wine diluted with Vals or Vichy water, but little pure wine, no brandy or other distilled liquors.

6. Regular daily exercise to be taken. All bodily exercises are favorable. Insist especially on walks in the open air, mountain excursions, fencing, boxing, joinery.—*Therap. Gazette.*

Bandage After Labor.—Before the Obstetrical Society of London, Dr. Herman considered the use of the binder or bandage during the lying-in period, and concluded that its sole utility consisted in the comfort it gives the patient. He did not think it had any effect in keeping the waist measurement small and so preserving the figure of the patient. To counteract the injurious effects of the sudden lowering of the intra-abdominal pressure it should be applied at the moment that evacuation of the uterus takes place. Dr. Gervis said that patients wanted it not so much because it might influence the size of the waist, but for the support it gave to the lower abdomen and its effects in checking any tendency to undue fullness there afterward. It promotes uterine action and checks hæmorrhage. Non-use of the binder leads occasionally to the "pendulous belly," and its ill consequences. When properly adjusted it promotes involution.—Ed. in *Pacific Med. Jour.*

It is said that the unpleasant symptoms that follow the internal administration of iodine or the iodides may be averted by the daily use of fifteen to twenty grains of bicarbonate of sodium.—*Col. and Clin. Record.*

We are glad to note the growing disposition toward the establishment in St. Louis of private hospitals and institutions, such as the one noted in the advertisement of Dr. Shaw, this issue.

The growing popularity of Campho-Phenique is evinced by the strong testimonials presented on advertizing page v, this issue.

USEFUL FORMULÆ.

The following are taken from the *Med. Bulletin:*

For the Paroxysms of Asthma.—

℞ Potassii iodid., - - - ʒijss.
Tinct. lobeliæ, - - - ʒjvmx.
Syr. sarsaparillæ co., q.s. ad., - ℥ij.

M. Sig. One drachm every two hours till relieved. —Anders, *Times and Reg.*

Sorbefacient in Pleurisy.—

℞ Syr. ferri iodid., - - - ʒijss.
Potassii iodid., - - - ʒjϑj.
Syr. sarsaparillæ comp., - - ℥j.
Aquæ, q.s. ad., - - - ℥ij.

M. Sig. One drachm four times daily, in water.—Anders, *Ibid.*

Alterative for Tertiary Syphilis.—

℞ Potassii iodid., - - - ʒijss.
Syr. acidi hydriodic., - - ℥j.
Aquæ destillat., - - - ℥iij.

M. Sig. Two drachms thrice daily, in a wineglassful of rice-water (to detect free iodine).—Gerhard, *Ibid.*

For Acute Pleurisy.—

℞ Ext. jaborandi fl., - - - ʒj.

Sig. Take at once, in a cup of hot water.

℞ Sodii citrat., - - - - ʒij.
Sodii acetat., - - - - ʒij.
Sodii salicylat., - - - ʒij.
Aquæ menthæ pip., q.s. ad., - - f℥vj.

M. Sig. Half ounce every two to four hours.

Hot flannels to chest, sprinkled with laudanum, and a towel pinned tightly around body; dry diet; rest in bed; flannel underclothing and night-dress.—Waugh, *Ibid.*

For Convulsions in a Chlorotic Woman.—

℞ Auri bromidi, - - - - gr. j.
Arsenici bromidi, - - - gr. j.
Ferri bromidi, - - - - gr. xl.

M. Et in pil. No. xx div.

Sig. One after each meal.—Waugh, *Ibid.*

Pomade for Prurigo.—

		parts.
℞	Boric acid,	
	White wax, - - - -	aa 10.
	Paraffine, - - - -	20.
	Olive oil, - - - - -	60.

M. —Kaposi, *Ibid.*

Pomade for Fissure of the Anus.—

		parts.
℞	Boric acid, - - - - -	3
	Chlorohydrate cocaine, - -	1
	Lanolin, - - - - -	30

To be used after thorough cauterization of the parts with siver nitrate.—*L'Union Med.; Jour. Amer. Med. Asso'n.*

ORIGINAL ARTICLES.

OBSERVATIONS BASED ON THE CLINICAL APPLICATION OF THE KOCH LYMPH, AT VIENNA.

BY OTTO E. FORSTER, M.D., ST. LOUIS.

When Prof. Koch's astounding discovery of a remedy against tuberculosis was published some weeks ago, I had to decide whether I should join the general procession of medical men to Berlin, from which place I had received an invitation to watch the experiments at one of the principal clinics, or wait till the remedy had been brought to Vienna and had been subjected here to a trial by the leading physicians of the Vienna General Hospital.[1] After a mental comparison of the Hospital Institutions at Berlin with those of Vienna I was led to prefer the latter for the study of the action of Koch's new remedy, especially when I came to consider the unequalled opportunities afforded by the Vienna General Hospital with its 2,000 beds, its immense material of out-door patients, its abundance of rare cases of disease of every description, and its numerous staff of physicians and surgeons eminently skilled in all the special branches of medicine which have become so highly developed. Moreover I looked with some favor upon that healthy skepticism peculiar to the Vienna medical profession which has so often done away with many so-called scientific discoveries, or new therapeutic remedies, *e. g.*, Billroth's pus-poison, Lostorfer's syphilis corpuscles, Kleb's natrium-benzoicum treatment for tuberculosis, Kalisher's phosphate of lime treatment in tubercular joint diseases, etc. Only three weeks have passed since the lymph has been brought to Vienna and the experiments commenced in the various wards of the General Hospital. It is, therefore, not possible to give a final judgment at this time upon its curative powers; nor can this be done if we base our opinion upon the Berlin results, as there has not as yet been even one case reported as cured by Koch's remedy, although the experiments have been going on there since September. The General Hospital here has undergone a perfect change since the date of the beginning of the Koch treatment. Formerly one could rarely meet with a phthisical patient in the clinical wards, while now 30 to 40% of the patients belong to that class of sufferers, and an immense afflux of patients affected with the different forms of surgical and clinical tuberculosis, who cannot all get admittance to the Hospital, enables the physician to select the most suitable cases for treatment. This overcrowding of hospitals with tuberculous patients who must apparently be kept under treatment for many weeks at least, is certainly an item which would be well worth the consideration of the hospital physician before commencing the new treatment; the pressure for space produced by this one single class of patients detracts greatly from the efficiency of a hospital, since many patients suffering from other diseases and in great want of hospital treatment must be excluded from the wards. To return to my observations I must state, at first, that the Clinic for Internal Diseases of Prof. Kohler was the only one in which the results obtained were at all confirmatory of those obtained at Berlin. Here 35 tuberculous and 3 non-tuberculous patients have been injected with the lymph. The dose used was (1) one milligramme for the first injection, and was increased in some cases up to (1) one centigramme, repeatedly injected without any ill effects. All the tuberculous patients (most of them cases of pulmonary disease) exhibited the specific general reaction as well as the local reaction, and I have been impressed by the marked expectorant action of the remedy exhibited in these cases, which to my mind is superior to that of all other expectorants. In some of the cases a remarkable increase in the number of the bacilli could be noticed after the injections, and the bacilli sometimes showed the signs of degenerative processes, that is, they appeared broken up into small round pearly granules, and vacuoles were present—an appearance often seen in bacilli from fully caseated tissue.

In some cases there was diminution of the night sweats after the injection, while in others they continued. In general the physical signs were not changed much after the injections. At Prof. Nothnagel's Clinic for Internal Diseases, where 31 patients have been subjected to Koch's treatment, some of the patients failed to show the well-known specific reaction, although tuberculosis could be proven not only by physical examination but also by microscopical examination of the sputum. The same has been the case at Prof. Schroetter's Clinic for Internal Diseases and Laryngology, and in the internal wards of Dr. Standhartner; at both places only 30% of the patients showed the reaction, and in two of Prof. Schroetter's laryngological cases (tubercular ulcers of the pharynx and larynx) the local reaction was very mild.

Regarding surgical tuberculosis, I have seen the most marked reactions exhibited in cases of tubercular swelling of the lymphatic glands, while cases of caries of the bones which I saw at the Polyclinic remained uninfluenced, even after repeated injections of 3 to 5 milligrammes. In two cases of well marked tubercular disease of the joints at Prof. Billroth's Clinic no general or local reaction occurred even after repeated injections of 3 milligrammes, so that Prof. Billroth believed these cases to be "refractory" against the injected lymph. The most confirmatory results have been obtained in cases of lupus vulgaris, at both Profs. Kaposi's and Neumann's Clinics for Skin Diseases. At Prof. Kaposi's

[1]When Prof. Koch's paper was published Dr. Forster telegraphed that he would proceed to Berlin to study the new method, but on after-consideration he concluded to remain at Vienna. Subsequent events have shown that his decision was a wise one.—ED.]

Clinic 22 cases of lupus vulgaris are now under treatment and there I could see the specific elective action of Koch's remedy on this kind of cutaneous tuberculosis; all the cases showed general and local reaction fairly well, but in some of these cases the dangerous general symptoms produced by the second and third injection, such as œdema of the lungs, collapse, etc., became so great that the lives of the patients were despaired of.

Prof. Kaposi concluded from this sad experience that Koch's remedy had a cumulative action, but I believe that these occurrences are due to peculiar individual idiosyncrasies which have yet to be studied.

One case of lupus vulgaris proved to be refractory to injections of 4½ milligrammes. So far as I could observe no rule could be found regarding the proportion between the amount of lupus tissue, the quantity of fluid, and the intensity of the reaction. There were cases of very small circumscribed lupus responding to an injection of a few milligrammes in which intense general symptoms (fever, scarlatiniform exanthema) developed after inoculation, while on the other hand the symptoms often remained mild in cases of very extended lupus. Very interesting were the results obtained in cases of non-tubercular diseases treated with Koch's lymph. A lupus erythematoides of the face showed intense general reaction (fever of 39°C. lasting for some days) with local swelling; the same occurred in a case of lepra maculosa (leprosy), in a case of sarcoma of the pharynx, and also in a case of syphilis pustulosa. A case of actinomycosis at Billroth's Clinic also showed the specific reaction after the injection. Prof. Maydl, at the Polyclinic, has injected several persons who appeared to be in a perfectly sound state of health, and a typical reaction with fever 39° to 50°C., and erythema, occurred in each case. It has been said that there is a possibility of a latent tubercular process being present in these cases, and that such results should not be accepted as proving anything against the remedy as a means of differential diagnosis, but when we bear in mind the number of cases in which tuberculosis is present that have shown no reaction whatever, it appears to me that we may at least look upon Koch's fluid as possessing a doubtful value in this regard. I believe that Prof Koch has not had under his control a sufficient number of cases upon which he can base such a positive opinion as is laid down by him, in his recent publication, with regard to the diagnostic value of his remedy. It seems that important restrictions must be placed upon his suggestions regarding the diagnostic and therapeutic value, as well as the therapeutic action of his remedy.

Regarding the conclusions which we may draw from the preliminary observations made here, I would say that it seems probable that Koch's lymph has a specific action on certain products of chronic inflammation, present in greater or less quantity in the course of tubercular processes, but it would also seem justifiable to say that it has an affinity for products which are produced in other infectious, non-tubercular diseases, *e. g.*, lepra, actinomycosis, etc. In microscopical preparations, shown to me by a friend, of tuberculous tissues of persons who had been subjected to Koch's treatment, I could see that the local action of Koch's lymph consists in the production of an inflammation around the tuberculous growth which is marked by an abundant migration of leucocytes, by dilatation of the surrounding small blood vessel, and by an exudation of a fibrinous matter in large quantity; an inflammatory process much resembling that of croupous pneumonia. It must not be forgotten that the production of such an inflammatory process with its agglomeration of cells may prove highly dangerous in certain organs, *e. g.*, in the brain, meninges, the eye, etc., and it is well to keep in mind also the intense hyperæmia produced in the environs of the diseased area, by which œdema of the lungs or of the brain, or debility of the heart may result, causing a lethal effect, or at least lessening the strength of the patient to a most undesirable degree. I must therefore warn against the use of doses larger than one (1) milligramme for the first injection, especially since it seems to me that by the use of larger doses for the first injection the patients lose the tolerance for stronger injections which may follow. Whether or not the lymph is a poison to a healthy person cannot be definitely stated as yet, as the doses used here were too small, but the products of the action of the lymph on tuberculous tissue are certainly highly poisonous. The quantity of these poisonous products formed by the injection are highly variable, causing the most different phenomena.

Specific as the action of Koch's lymph seems to be, it must correspond to a specific matter present in the tuberculous tissue, and it may be noted here that the Vienna correspondent of the *Lancet*, Dr. Beer, who wrote an interesting article for the *Wiener Medicinische Presse*, immediately after the first publication, pointed out the fact that some years ago the presence of *cellulose* in tubercular tissue had been proven by a physician of Vienna, Dr. Freund. Perhaps this discovery may give a clue to the explanation of the specific action of Koch's lymph.

Most probably a long time will elapse before the researches concerning Koch's recent discovery will have advanced far enough to throw a definite light upon the chaos which has been produced by its premature announcement.

Vienna, December, 1890.

THERAPEUTICS.

BY J. M. QUIGLEY, M.D., PEIRCE CITY, MO.

Read before the Southwest Missouri District Medical Society at its Meeting in Springfield, Mo., October 13, 1890.

MR. PRESIDENT AND GENTLEMEN OF THE SOCIETY.—In bringing before you a subject which treats of the action and uses of medicines, in the cure of disease, I cannot think of entering a field of such magnitude to

study, even briefly, the most prominent and important products of our materia medica. You have all had your share of that, as I shall endeavor to convince you further on. The Galenic method of therapeutics has so familiarized all with the different preparations of mercury, Peruvian bark, opium, the late antipyretics, and the many other preparations in use with us in the treatment of diseases, that it can fairly be assumed your conclusions will be intelligently attained, in regard to anything I may advance upon this subject. Instead then of calling attention to lines, many of which would be experienced in every day practice, I ask your consideration, briefly, of the present condition of our resources in the presence of disease.

Who among us, from the young man with a few years' experience to the ripest in years, has not stood in the presence of disease, oftentimes with the uncertain and confused state of our materia medica, and keenly felt the deplorable inadequacy of our resources for its cure; while at other times, with a mental tension, only sustained by a high order of courage, he has had to contend with affections for whose cure he was totally unarmed. It is no novel experience to see a representa tive medical man deeply versed in the literature of his profession, skilled and experienced in its practice, take the life of his fellow in charge, and readily detect his malady; thus far he is an expert. But ask him about a cure; he will evince uncertainty. If he is honest he will be indefinite, and, at the least, will be provisional in any promises he may make. He knows his resources too well. The inefficiency of his therapeutics is well learned in the terrible and bitter experiences of the past; he knows how often these weapons, in his hands, have proved valueless in the preservation of human life.

How well we can remember the simple admiration of student days, when the learned professors electrified us with their scientific attainments, and how we listened with youthful enthusiasm and credulity, as they de scribed the lesions of this and that malady, until our reverence was seemingly replete; not satisfied, they in tensified our amazement by causing their statements to be verified upon the cadaver of the amphitheater. They made the impression upon us that "Medicine is the art of curing diseases." With the experiences of to-day, having had charge of the diseased—with all the multiple ailments of afflicted humanity—the grave responsibility of precious lives committed to our trust greatly tends to call in question the above statement. The rude shocks of many therapeutic disappointments, have dwarfed our confidence, until we are almost ready to voice the sentiment, "What is medicine, after all!"

Had our teachers kept therapeutics abreast with pathological anatomy, physiology and diagnosis, prejudice, expectancy, nihilism, skepticism and paralyzed efforts, from floundering amid vacillation and uncertainties, could not have existed; but long ago, the practice of medicine might have been on its deserved plane, with its unsystematic elements of to day replaced by therapeutics of exactness, energy and activity.

But to make the subject more practical. How much do we ever think about the sources of our therapeutics? Do we not most of the time prescribe without any thought of the quality of the properties of these pharmaceutical products, in which are brought together masses of repugnant drugs, numbers of them harmless from being inert, some, never twice alike in potency, almost always to the sick, disgusting, often indigestable, therefore nauseating, and above all as often unreliable. Is this a misrepresentation? Let us briefly call to mind what may be the chances for impairment in the therapeutic power of the vegetable products of our materia medica, and our remedial agents as at present prepared, and see if it can be classed even as an exaggeration. Great differences are at all times discoverable in plants. They vary in their constituent elements, during the period of growth, with the age of their stalks, with their healthfulness and vigor, the season in which they are obtained and stored, the different soils in which they are produced, and the climate in which they are grown, all have an influence upon their therapeutic power. It is also a fact that the quality of medicinal plants is changeable in degree of power with climatic conditions, culture, aeration, age, drouth or humidity. To add further to the above uncertainties in the manufacture of drugs from vegetable products, in the process of drying, water is disengaged by evaporation from the plant and its appendagss, exposing it to the oxidizing action of the air, which results in a partial decomposition of its substance. The leaves, flowers, seeds, stalks and roots also, of many plants, change their color, have no longer the same odor and taste, but are constantly undergoing a process of slow decay, beginning from the time of the removal of the living plant from its natural habitation. Life in the vegetable kingdom, as well as in the animal kingdom, consists in movement—molecular changes. Immobility is death to vegetable life, precisely as it is to animal life.

What think you of extracts and tinctures, which may be made from such a collection? Can they be exact? If not, are they strictly reliable? If not to be depended upon, are they worthy of your confidence? Infusions and decoctions from the same sources are still more objectionable, on account of bulk, unpalatableness and uncertainty of strength, the latter depending somewhat on its time of exposure to the action of heat. Aqueous and alcoholic extracts, dry or fluid, which so frequently enter into our prescriptions, belong to the same category—are produced from the same collection, and must of a certainty possess, more or less, the same uncertain and variable action. And last of all, after being placed upon the druggist's shelves, the process of disorganization, attenuation and decay, are produced in chemical changes which occur, and, with the deterioration from age, contribute to make the inaccuracies still greater.

But as if to aid human ailments in the destruction of life, and to still further weaken us in our already imperfect resources, we are assured that human depravity

has begotten the unscrpulous and unmerciful manufacturer, who for love of gain is willing to sacrifice human happiness by placing in our hands adulterated drugs, entailing upon our patients incurable pathological conditions and death.

Who will deny that his wholesale methods of adulteration cannot pervade the entire materia medica, and result in complete therapeutic pollution? Is it possible that in any calomel we might use, we would always stop to investigate its chances for impurities, whether it contained corrosive sublimate, or if its adulteration consisted in the preparations of barium and chalk? The same might be said of subnitrate of bismuth: would we stop for a moment to consider that lead and arsenic are adulterants of that remedy, and that their presence might be disastrous to our patient? If we made the stomach of some patient the receptacle of copper, carbon, phosphorus, etc., by what we exhibited for iron by hydrogen, to say the least, we would fall short of our purpose. Who would suppose that in some preparations of opium, a combination of pitch prevails, and would any of us prescribe the acetate of potash, if it were known to be associated with the salts of lead, zinc and copper? Even our sulph. quinine—the remedy best of all in pyrexies—so much used, so much abused—the pollutionist gives us that, wherein he exhibits much versatility, with salicylic acid, oxalate of ammonia, the carbonates of lime, magnesia, and so on to the simplest sophistication with flour, as is sometimes to be found at the cross-roads store of the rural districts.

The corrupt hand of dishonesty has been thoroughly identified with this traffic, and notwithstanding the precautions of honest dealers and manufacturers, view it as you may, can the suspicion be removed, are not the chances possible, and within easy reach, that may taint at all times with dishonest manipulation any or as much as may be desired of our therapeutic arsenal? If this be true, it must follow that any of us, at some time, might become the accessory of the distructive elements of disease by supplementing their dangers with toxic agents, whose presence and proportions would be unknown to us, and whose effects, because unsuspected, probably, would seldom or never be considered as a cause of protracted physical suffering, liable at times to eventuate in confirmed invalidism, and at others in death.

If the foregoing statements, which I have made in regard to the unreliable and unsettled condition of our therapeutics, be true—and they must be, for they are unassailable, based upon facts, simple, natural and reasonable—is it not time that we should be fully awake to the situation? Let us have an exactness about our remedies upon which we can always depend, and a characteristic purity, with the active principle itself affording us complete protection from all defects from whatever source.

A step was taken in the right direction when the chemist gave us sulphate of quinine for Peruvian bark; other alkaloids have been obtained from vegetable products, containing only the active principle of the plant, which can be used as judiciously as quinine. As all are probably aware, "an alkaloid is the immediate principle representing the really active part of the plant, freed from all elements which may obstruct, or in any way interfere with its action." How many disasters are chargeable to opium, because it is so complex in its alkaloids; and that their presence is so proportionately various in different samples? In morphine alone different samples of opium yield some 60% and others 12% of that alkaloid, proving conclusively the uncertain strength of the drug, and that some of such specimens of opium are as strong again as others in morphine. Moreover, to add to the dangers of opium, it contains 17 alkaloids, all differing in their properties. Its most important alkaloids are six; morphine, narceine and codine, which are soporifics, each containing different properties. The other three, thebane, papaverine and narcotine, are spasmodics—produce convulsions, and also vary in their action. Is it surprising, with such uncertainty of strength, and its numerous alkaloids, that changeful and injurious conditions oftentimes should follow its administration? That frenzy, spasms, narcotism, nausea, vertigo, renal and intestinal disturbances, with the protean visions of pandemonium, should be generated in nerve centers, surcharged with the toxic elements of 17 alkaloids, organic acids, together with a conglomerated mass of sugar, gum, resin, extractives, odorous principles, effete matter and other constituent elements of plants? Is it any wonder that frenzy, spasms, narcotism, etc., from such a cause sometimes become tragic, and conclude with a death scene!

In like manner, most of our preparations have this complex character which subjects us to accidents, surprises and disappointments. Shall we continue to derive from such a source the weapons of our professional warfare? Will we go on writing prescriptions, to prepare pills or mixtures from such a gross and uncertain assemblage of drugs as herein presented? Can positive effects be obtained with such mixtures and pills? Will we still continue their use exclusively—persist in the old grooves of official therapeutics, in preference to adopting the alkaloids, free from all admixture and chemically reliable? These are questions of paramount importance, upon whose solution hinges the advancement of therapeutics, and the destiny of lives.

No one need have any fears that, to use alkaloidal medicaments, it requires the learning of a new line of remedies; such a change is not proposed. On the contrary, it gives us the medicinal property of each drug in common use, in a pure alkaloid, capable of doing as much as we accomplish with the best of our resources, and a great deal more beside. The physician's mission is to relieve human suffering, and his perversity is supreme who obtains his remedies from one source alone, and refuses to use good ones from other sources. In the advocacy, therefore, of alkaloids, it must not be understood that I exclude from therapeutics useful reme-

dies found outside of the vegetable domain. Remedies from mineral substances are abundant in curative action, and are now prepared in granules fully as pure as the alkaloids.

But, in what form can the alkaloids and glucosides be used to the best advantage? I answer by the dosimetric method, as introduced by Burggræve. I have shown how uucertain our therapeutics must be in exactness, and for such reason let us insist and not be satisfied until we secure such remedies as will be available, and from which we can obtain more exact and positive results. The Burggræve method gives us medicaments in granules, containing the different alkaloids and glucosides, mathamatically exact in dosage, with a full assurance of their purity, unchangeableness by time, their rapid solubility in the secretions of the stomach, and without a possible chance of accumulation in the intestinal tract, as this method introduces regular intestinal lavage, which acts not only on the alimentary canal, but also on the kidneys and skin.

Dosimetric granules are dispensed in sealed glass tubes, and as a guarantee of genuineness, have upon their labels a printed fac simile of Burggræve's signature. They are not specialties as some have charged, but are majesterial preparations, and are manufactured by a reliable firm in Paris. These alkaloids act with the most efficient promptness, and are susceptible to the most happy combinations which contribute to greatly increase and assure their successful action. Granules of aconitine, veratrine and digitaline are used as defervescents, and together will reduce temperature more rapidly than either one alone. The salts of quinine are the hydroferrocyanate, sulphate, arseniate, bromo-hydrate, salicylate and hypo-phosphite; all, as therapeutic powers,are models in their way. All painful affections are readily overcome by the alkaloidal granules of morphine, ·oedine, narceine, hyoscyamine, cicutine and atropine. I shall not attempt at this time to enter into any further discussion of the merits of dosimetric remedies. It is enough to say that these medicines will meet any indication. Their size in granular form makes their administration easy, without repugnance, and insures a better tolerance and retention at all times, and in all gastric conditions. I have not used them as yet exclusively at all times, but in all instances they have given very great satisfaction. In some cases treated exclusively with the granules, I can scarcely believe that success would have obtained through any other method, and I feel fully confident that alone, or associated in intelligent combinations, these remedies will produce such surprising results in completeness and surety of action, that no practitioner who has witnessed their effects as curative agents, will feel that he can neglect them, or afford to practice medicine without them.

To those who are unacquainted with this method of therapeutics, and have a desire to acquire a knowledge of it, they can be satisfied by procuring Burggræve's literature, of which a few works are already translated, with Castro's Therapeutics and Practice, in which are traced out the physiological effects and exactitude of alkaloidal therapeutics.

REPORT OF THE STATE BOARD OF HEALTH OF MISSOURI, FOR 1890.

To the Governor.—The provisions of law (Section 5433, Revised Statutes, 1889), concerning the contents of the annual report of the State Board of Health require that "such report shall include so much of the proceedings of the Board, and such information concerning vital and mortuary statistics, such knowledge respecting diseases, and such instructions on the subject of hygiene as may be thought useful by the Board for dissemination among the people, with such suggestions as to legislative action as they may deem necessary."

It is also declared to be their duty (Section 5419) "to recommend to the General Assembly of the State such laws as they may deem necessary to improve and advance the sanitary condition of the State." In obedience to these requirements the following general report for the year 1890 is respectfully submitted.

Public Health.

In reviewing the course of the current year, it is a subject for sincere congratulation to the public that, so far as the scanty official information supplied to the Board goes to show, the health of the people of this State has perhaps been above the average; no destructive epidemics of local origin have prevailed, and notwithstanding threatenings from abroad, no foreign pestilence widely fatal in character has reached our borders, nor even effected a lodgment within our National domain.

Vigilance and Preparation Necessary.

It is, however, of the utmost importance to the people of the State that they shall not permit themselves to be lulled by past or present immunity from urgent sanitary danger into a condition of false security with accompanying neglect of the known safeguards and precautions against spreading diseases, the adoption of which has been shown by costly experience in lives and treasure in other States, to be the wisest and truest economy. Forewarned is forearmed to those who give ear to the teachings of experience, and the need of due preparation becomes doubly important and impressive in a public health sense, when the disastrous consequences are considered that may be entailed upon a defenceless or ill-prepared community by the outbreak in their midst, or swift approach of diseases the very names of which, to most of mankind, are full of terror, and tend to inspire a fear which in turn may predispose the threatened population to the dreaded infection.

Cholera.

Apart from those domestic diseases, preventable in their nature, which so seriously and constantly operate

among our population, such as tuberculosis in its many forms, and the acute spreading diseases of infancy, childhood, and youth—all of which could be largely shorn of their power for harm by energetic and timely action on the part of local health officials, if such officials exist—the principal note of warning from abroad has been concerning the danger impending from the presence of epidemic cholera in western Asia, northern Africa, and southwestern Europe.

The steady westward progress of this formidable disease among the Mohammedan populations in Asia and Africa has been of an impressive character, and its rooted lodgment in Spain adds seriously to the danger to which this continent is exposed. The forces of this pandemic are mustering at a number of points on the shores of the Mediterranean sea, and upon the thoroughness of the inspection and disinfection services at coast quarantine stations will largely depend our freedom from the importation and spread of this disease next summer, should the atmospheric or other conditions favoring its epidemic development be present at the time.

Defensive Measures.

The natural and obvious conclusion, therefore, is that while no doubt the utmost precautionary vigilance will be exercised by both State and National quarantine authorities to prevent the importation of cholera, still reliance upon such means of protection alone would be short-sighted and fraught with danger, and that the sagacious course to be pursued on our part would be to prepare in time to resist by all means within our power its local advent and spread should it break through the quarantine bars erected at the seaports of this country.

The ability of the people of this State to offer effective opposition would depend very largely on the degree to which they were organized for that purpose, and their experience in public health work; and the well-known existing lack of sanitary organization and preparation to offer resistance to diseases leads the Board to again point out to the Chief Executive, and to the General Assembly, the dangers to which the people of the State are exposed from this omission.

Local Organization.

Effective local organization for public health purposes is impossible in the absence of legislation compelling such action. This subject has been dwelt upon in former reports, and its imperative necessity is again most respectfully urged. The duty and obligation of self-help and local action in sanitary matters and emergencies should be thoroughly impressed upon the public mind, and that local action must precede the call for help upon the State authorities, who, however, should be in a position to promptly extend the needed aid if it should appear that the emergency was such as to properly require such action, or that the danger involved or threatened to involve a number of localities, in which event the co-ordinating and supervisory powers of the State Board would properly be exercised.

The importance of and necessity for self-reliance on the part of each community is even more pressing in sanitary matters than in many other objects of public action; and, if necessary, the stern lesson should be impressed that those who will make no attempt to care for themselves must take the consequences of their neglect or folly, however serious they may be; but a neighboring community, exposed to similar danger or to danger arising from such neglect or folly of their neighbors, who are active in self-defense to the extent of their knowledge and means, should receive every help and encouragement from the State to make a winning fight against the dangers by which they are beset and confronted.

Quarantine Powers.

The quarantine powers, for both external and local purposes, conferred on the Board by existing law would seem sufficient for present purposes, provided adequate means were appropriated to enable the Board to act with promptness and thoroughness in time of need; and provided further that the necessary competent local assistance would likewise be forthcoming when required.

Conditions of Efficiency.

So far, then, as the supervisory and executive functions of the Board are concerned, full efficiency is contingent upon money and qualified local help. The first can only be supplied by the General Assembly, and likewise the latter can only come through appropriate action by the same body looking to the establishment of local health authorities. The Board needs an arm in every county in the state.

In order that the work of sanitary organization throughout the State may be begun at the earliest possible moment the Board would respectfully recommend for passage the bill to create local boards of health, etc., which appears in full in the last report, and which passed the Senate at the last session.

Urgency in Point of Time.

Even if this bill were promptly passed it would be a matter of great difficulty to effect the complete organization of the State by counties and towns before warm weather set in, and a most important part of the year for sanitary work in anticipation of summer heats would be lost to a considerable extent. Even if the legislation so urgently needed in this direction be not secured, it is the duty of every householder in the State to take early steps to remove from his premises, and safely dispose of, every possible source of danger and cause of disease, as a safeguard against cholera, and watchfully maintain his surroundings in good condition; and even if that disease should not appear, the good influence of such work would be apparent in the reduced rates of sickness and death among the people from those maladies, commonly known as filth diseases, which so largely and constantly affect and menace population health in this State.

Pandemic Influenza.

An influential cause of wide-spread sickness was the passage through this country last winter and spring of pandemic influenza, or so called la grippe, which seems to have originated in Russia and spread thence westward around the world. There is a prevalent sanitary as well as medical opinion that a re-appearance of this disease in a somewhat modified form has been experienced in this country during the latter part of this year.

There can be no doubt of the fact that this disease exerted a pre-disposing influence on other affections, debilitating or fatal in their nature, and this secondary morbid effect gave to the exotic plague a recognition and importance which otherwise it would not have secured.

Human Tuberculosis.

The prominence given in the public press to reports from abroad concerning the cure of tuberculous diseases, and the eager interest aroused among all civilized people by the expectancy thus held out, has deservedly attracted general attention to the wide spread ravages of this disease, which, as an influential factor of disability and death in man, surpasses every other known malady—it having, unfortunately, been too often the wont of physicians and sanitarians and governments to passively submit to the enormous losses from this cause rather than rally to its curtailment and overthrow the same potent sanitary forces which have operated so effectually against certain other destructive maladies.

The discoverer of the reputed cure, however, while expressing the guarded hope that the remedy offered might be found to have a lasting value and place in the treatment of certain forms of the disease, dwells with much emphasis on the fact that the necessity for preventive measures remains as great as ever before, and points out that a cure by its means would afford no guarantee against re-infection of the persons treated; hence the importance of securing the immediate destruction of all matters expectorated by consumptive people, which, if deposited carelessly in houses or public places, by becoming dried and floating in the air, constitutes an incessant source of danger to those prone to the disease by inheritance or morbid process.

Diphtheria and Scarlet Fever.

From the information supplied the Board concerning these diseases it would appear that there was a somewhat decreased prevalence in the State as compared with some former years. The complete extermination as epidemics of these dangerous enemies to childhood and youth is an object worthy of special effort on the part of the State, and unceasing endeavor should be made in this direction by helping local authorities to make provision for isolation hospitals, or providing means for securing complete separation of the sick from the well, wherever these diseases may appear, with proper facilities for the disinfection free of charge, or the complete destruction, if thought necessary, of all infected articles, if the relations or friends of the sick person are unable to compass these ends.

Smallpox.

A few cases of smallpox have been developed in the State, an outbreak having occurred in St. Louis in October, due to imported infection. Another reported appearance of the disease occurred in the northwestern part of the State, believed also to have been due to importation. In these several instances the disease was soon mastered.

Typhoid Fever.

The evidence at hand would seem to show a degree of activity in typhoid fever during the year, more particularly in the latter part of summer and during the fall months; in all probability the circumstances of prolonged drought, with consequent lowering of water in wells, and leakage into them of poisonous matters from outhouses, etc., contributed very materially to the morbid result indicated.

Diseases of Domestic Animals.

The growing knowledge concerning the nature and extent of diseases occurring in domestic animals, and which are dangerous to man either by direct communication, or through the medium of infected food products derived from animal sources, serves to emphasize still further the importance of precaution in this direction, and the exercise of vigilance on the part of health authorities, National, State and local, for the prevention of danger to the public from this direction.

Other Articles of Domestic Consumption.

Other articles in common use derived from vegetable sources are subject to deleterious admixture, adulteration, or fraudulent imitation. During the year the Board was appealed to by a manufacturer of vinegar from apples in this State who asked protection against the fraudulent practices of parties whose product was branded as cider vinegar while it was in fact derived entirely from other than fruit sources, and contained ingredients claimed to be deleterious to health. It was asked that the producers of imitation vinegars be compelled under penalty to brand their goods so that no one would be deceived in buying, and that this is a reasonable and just demand would appear from the fact of that requirement being enforced as regards imitation butter. It is respectfully recommended that suitable legislation in this direction be enacted.

State Chemical and Analytical Inspection.

If the Board were given sufficient means whereby the services of a qualified analytical chemist and biological expert could be permanently secured with adequate laboratory facilities, a most valuable work to the public could be rendered in the investigation and analysis of food substances and products offered in the markets,

whether of suspected quality or otherwise; the testing of public water supplies; the analysis of patent and proprietary medicines and nostrums so freely offered to the people and many of which have been shown to contain dangerous ingredients in considerable quantities, and which are put forth with all the advertiser's skill in terms calculated to entirely mislead the purchaser in regard to their composition.

The good quality of articles offered in the market as food supplies of all kinds, drugs, mineral waters, etc., has been notably increased in States having facilities for such work, and it is respectfully submitted that the time has come when this State should make some provision in this way for the benefit and protection of her people.

Garbage Disposal.

The subject of garbage disposal and the safe sanitary conversion of the refuse matters of cities, animal and vegetable in nature, has received some attention from members of the Board, and a report thereon detailing the processes employed for the accomplishment of this purpose was made to the authorities of St. Louis in December.

The subject is one that is still under discussion and consideration by sanitary and municipal authorities; its importance from the standpoint of public health is undeniably great, and it is to be hoped that the vexed question will soon be definitely and satifactorily settled.

Carriage of Dead Bodies.

The safe sanitary transportation of the bodies of persons, dead of communicable diseases, under the rules and regulations adopted by common carriers in this country last year and noted in the last report, is satisfactory and efficient so far as known. The railroad companies furnish the forms, etc., required, and by posters conspicuously placed in stations, endeavor to educate the public into a knowledge of the beneficial purpose and details of the requirement.

Co-Operation With Other Boards.

In view of the limited resources at the command of the Board in the event of a dangerous epidemic appearing in this country, it has been deemed a wise policy to cultivate friendly relations with other boards and sanitary bodies throughout the country; to keep in touch with the best public health intelligence and effort in order that the latest and best practical knowledge in the restriction and prevention of disease gathered from all sources could be made available for the benefit of this State; and that co-operation with other boards could be more readily secured, and a joint fight made and a united front opposed to the common enemy. To this end the Board has had representation at all the principal sanitary meetings held during the year, reports concerning which will duly appear.

Vital Statistics.

Owing also to want of means it has practically been impossible to carry out the requirements of section 5423, regarding registration of births and deaths.

As officially advised by the Attorney-General, the Board is required to furnish to county clerks the necessary blanks for this purpose, and to attempt to meet the expenses of this work out of the slender means provided has been deemed out of the question. The performance of this work is conceded to be of great importance to the State, but its magnitude demands that means correspondingly ample shall be provided to meet the expense of printing and distributing the forms, and the clerical labor necessary to compile the returns and put them in shape for practical use.

Difficulties in Transacting Business.

The transaction of the current business of the Board has been beset with the same inconveniences and lack of proper facilities noted in reports of former years. No suitable quarters could be procured for the conduct of business, and the storage of accumulating papers and records owing to lack of means to pay rent; much important data are in danger of loss in this way, and it is becoming difficult to properly care for the valuable reports and other publications received from other boards.

A Modified Requirement Suggested.

The requirement that the Board shall submit an annual report on or before the 1st of January of each year makes it a difficult matter to bring up to the end of the year and includes in the report much data that should properly appear therein—it being deemed advisable and natural that the report thus submitted should be for the calendar year. If fifteen days additional time were allowed this could be done; as it is now, absolute compliance with the law is scarcely practicable. The preferable requirement in this respect would be that the Board should make a biennial report to the General Assembly, and report to the Governor at such times as the latter should call for reports on special subjects.

Printing Reports.

The printing of the Board report for 1888 by the State printer, was accomplished during the spring of the present year. The fund for such purposes being exhausted, and it being deemed advisable by the Board to get out the report for 1889 as soon as possible, bids were accordingly taken in accordance with instructions, and the work was completed, and the report appeared in due time and was distributed during the fall months of this year.

The small appropriation of the Board had been husbanded for the purpose of meeting this expense, but the voucher drawn in payment for the work was disallowed by the State Auditor for the principal reason that such expenditure was not authorized by law, and, hence, the cost of the work will necessarily appear as part of the deficiency bill.

Financial Support of State Boards.

The general experience of boards of health throughout this country has fully established the rule that those having the best financial support are the most efficient, and have most fully proved their value in their respective States.

From information collected concerning the appropriations for this purpose in the several States, and which was published in the report for 1888, (pp. 60 to 64) it will be seen that a fair annual allowance for current expenses for such a body in a State having the population of Missouri would be $6,000, with a contingent fund for use in sanitary emergencies, the amount of which, in this State, should not be less than $20,000. It might not be necessary to use any part of this fund, and again its expenditure might be the means of saving many valuable lives, and preventing serious business losses and commercial derangements by epidemics, so that such provision for probable contingencies would be both provident and sagacious.

Legislation Recommended and Amendments Suggested.

In conformity with the declared statutory duty of the Board, the following legislation is respectfully recommended:

1. An Act making compulsory the early organization of local boards of health throughout the State, and making provision for the payment of their executive officers.

2. An Act requiring, under penalty, that all imitation food products, or articles or substances in common domestic use, shall be plainly branded so as to show their true character.

3. An Act authorizing the employment of a competent chemist or analyst, and making proper provision for his support, whose duty shall be to test as to purity, wholesomeness, or safety articles exposed for sale in the markets as food products of all kinds, public water supplies, natural and artificial mineral waters, drugs, proprietary medicines, etc., etc., and to make reports thereon to the Board, as may be required.

4. An Act appropriating twelve thousand dollars for the current expenses of the Board, including cost of collecting and recording vital and mortuary statistics, rent, fuel, clerk hire, salary of secretary, etc.; and twenty thousand dollars as a contingent or emergency fund, to be expended in defending the people of the State against dangerous or epidemic diseases.

5. Amend section 5428 so that county clerks shall receive compensation for making the records required, and furnishing transcript of same to the State Board.

6. Amend section 5433, so that the Board shall report biennially to the General Assembly, with the duty to make reports on special subjects to the Governer, as required.

Medical Practice and Registration.

The powers and duty of the Board in the administration of the Practice law were quite fully discussed in the last report, and judicial decisions were cited in which the constitutionality of such enactments was affirmed. No additional decisions rendered during the present year bearing on any of the points discussed heretofore, or on any new points, have come to the knowledge of the Board. Generally speaking, the enforcement of the law has not been attended with much friction, and there has been a perceptible lessening in the amount of impositions and deceptions practiced upon the public by charlatans and medical pretenders.

Until such time as the medical profession, acting with substantial unanimity, shall demand a repeal or modification of the law, the Board have nothing to offer concerning the direction such changes should take, or to add to what was said on this subject in the last report.

Registration of Phisicians and Midwives.

The registration of graduated physicians for this year has been somewhat greater than in former years, while the number of midwives has been less. This may be explained, perhaps, by the increased patronage of medical colleges, and the graduation of students on two courses of lectures, in anticipation of the obligatory requirement in some of our neighboring States of three terms after the present school session; and the decrease in midwives to the enforcement of the requirement made by the Board last year that midwifery schools shall teach two terms instead of one as a condition of graduation.

There has also been perceptible movement of physicians into this State from farther west, and this tendency seems to be increasing, whatever may be its explanation.

Total Registration.

The total number of original certificates to medical graduates issued during the year was 415; the numerical total of such certificates issued since the law took effect being 4,452. Of course this does not represent the actual number of such licentiates in the State, as many have died, removed elsewhere, or abandoned the profession.

Twenty-five midwives, all graduates, were registered, the total number of this class of certificates issued since the Board was organized being 581.

No certificates based upon successful examinations were given during the year, and the total of such certificates stands as stated in the last report, viz., 26.

The same applies as regards certificates to exempt non-graduates, a total of 979 having been granted.

Certificates Revoked and Refused.

The certificates of two physicians were revoked during the year for unprofessional or dishonorable conduct in accordance with the accepted construction of the law, and the decisions of the higher courts thereon.

In the case of an applicant who was refused registra-

tion for cause warranting such action in the opinion of the Board, recourse was had to litigation, and the case is now pending in the Supreme Court in the form of an application for a writ of mandamus to compel the Board to grant the desired certificate.

No Additional Requirements.

No action by the Board has been taken as yet in the direction of requiring medical colleges to adopt an extended course of study and three terms of lectures prior to graduation as a condition of the recognition of diplomas granted after the present collegiate year. This requirement, however, will be enforced by the boards of several of our neighboring States in accordance with notice to that effect duly given.

It is the prevalent medical opinion that the effect of this requirement will be found salutary to the public and the profession, and that a general recognition by colleges of the propriety and necessity of conformity in this respect will be soon secured with appropriate action on their part to this end.

Relations of Physicians and Pharmacy Board.

A difference of opinion last spring between this Board and the State Board of Pharmacy, concerning the proper construction of the amended law enabling physicians to register as pharmacists, led to the joint submission of the points involved to the Attorney-General. It was claimed by the Pharmacy Board that they had the right to license physicians as pharmacists on their diplomas without such applicants being required to show that they were legally qualified medical practitioners by the possession of the certificates of this Board. This was denied on behalf of the State Board of Health, and the decision of the Attorney-General supported the latter view.

Increase of Fee Recommended.

The fee now authorized by law to be collected of applicants receiving certificates is one dollar, while in a number of other States having similar laws the fee is three or five dollars.

Inasmuch as it is proper that the administration of this law should yield revenue sufficient to pay all the necessary expenses involved, it is respectfully recommended that the fee authorized to be collected for issueing a certificate be increased to five dollars.

Detah of President Gentry.

The Board sustained a severe loss in the death, last May, of Wm. Gentry, Esq., who was appointed a member July 2, 1885, and served continuously as President of the Board to the time of his death. Every member esteemed and valued him for his genial qualities, upright character, and public spirited performance of duty; and it is felt that the vacancy created by this loss will be one difficult to fill. Appropriate action in recognition of his character and services was taken by the Board at the May meeting.

In conclusion, the members of the Board desire to express to you their sense of appreciation, and to return their thanks for the encouragement and assistance uniformly extended by you in the discharge of their official duties.

All of which is respectfully submitted.

By the Board: Geo. Homan,
Secretary.

St. Louis, Dec. 31, 1890.

Intra-Uterine Injection of Ergot.—The woman was about 24 years of age, a primipara, and labor, which had lasted about 4 hours, was in every way normal. The placenta, which was expelled without traction in about 30 minutes after birth, was followed by a gush of blood. With the hand with which at the time I was manipulating the abdomen, I detected the uterus softening, or, at least, failing to contract. Continuing my manipulations I introduced my other hand full of ice into the uterine cavity, and also applied ice to the abdomen without avail. Hot water from an irrigator was next tried without any success. The patient rapidly sinking. Retaining my right hand in the uterus, I called for a hypodermic full of fl. ex. ergot, and plunged it through the abdominal walls into the uterine wall, at the same time expelling the fluid. The organ promptly contracted and forced my hand out. All hæmorrhage ceased in 5 minutes, and none appeared afterward. No abnormal results followed. The needle was strictly aseptic and the ergot prepared for hypodermic use only. L. T. Wade, M.D., in *Chicago Med. Times.*

Valvular Disease of the Heart.—Dr. F. P. Henry thus refers to the use of digitalis in this disease (*Med. and Surg. Reporter*, Nov. 22, 1890): The indications for digitalis are to be found only in the functional capacity of the cardiac muscle. When it is working regularly and overcoming the valvular obstruction without exhausting the reserve force inherent in every heart, digitalis is useless and may be injurious. When the heart is excited in its action; that is, when it is making superfluous efforts to overcome the obstruction, provided this coincides with increased arterial tension, digitalis is decidedly injurious. When the arterial tension is low, and the whole circulation is approaching a venous type, digitalis is decidedly beneficial. These statements apply to all cases of heart disease, irrespective of the particular valve or valves involved.

An Impression prevails that the Code of Ethics of the American Medical Association permits physicians to place upon their signs, cards, etc., the phrase "Practice limited to—" the specialty being inserted. Dr. N. S. Davis in the *Jour. Amer. Med. Association*, says that such permission is not to be found in the Code, nor is it to be found in any resolution adopted by the American Medical Association. It grew out of the reasoning of a Committee of the Association. Few desire to absolutely limit their practice to one especialty.

WEEKLY MEDICAL REVIEW.

BRANSFORD LEWIS, M.D., EDITOR. W. C. MARDORF, M.D., ASSOCIATE EDITOR.

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SATURDAY, JANUARY 17, 1891.

THE SPREAD AND PROPHYLAXIS OF DIPHTHERIA.

The ravages of this disease have always been so extensive that a considerable degree of attention has been given it, and the opinion of the present seems to have pretty well simmered down to the idea that more can be accomplished in the line of prophylaxis than in the line of treatment. Loeffler read a paper on diphtheria before the Tenth Congress at Berlin (*Der-Kinderarzt—Med.—Chir. Rundsch.*), and summed up his views concerning the disease as follows:

1. Diphtheria is caused by the diphtheria bacillus, which may be found in the excretions of the diseased membrane. 2. As the excretions are expelled from the body, the bacilli accompany them, and may find a lodging-place on anything in the sick room. 3. Diphtheritic patients harbor active bacilli as long as there is the least trace of false membrane remaining, as well as for a few days after the last remnant of membrane has disappeared. 4. Diphtheritic patients must be rigorously isolated so long as there is the slightest chance of the excretions containing baccili. Children who have had diphtheria should be kept from school for at least four weeks after disappearance of the false membrane. 5 Diphtheri baacilli are capable of existing for four or five months in pieces of dried membrane. For this reason all objects which may have come in contact with the discharges of diphtheria patients, such as body linen, bed-clothing, eating and drinking utensils, the clothes of attendants, etc., should be disinfected by boiling in water or exposing to steam at a temperature of 100°C. (boiling point). The rooms in which patients have lain must also be carefully disinfected. The floor should be repeatedly scrubbed with a 1–1000 bichloride solution, and the walls well rubbed with bread. 6. Experiments to show how long the bacilli can exist in a moist soil have not yet been concluded; it is possible that the bacilli retain their vitality better and live longer in a moist state. Dark, damp, dwellings appear to be especially favorable for the retention and development of the diphtheritic poison. Such dwellings should, therefore, be put into a more healthy condition; they should be well dried, and provision made for the entrance of light and air. On the removal of occupants who have had diphtheria in their midst the house should again be thoroughly disinfected. 7. The bacilli can exist outside the body at a temperature of 20°C; milk is a very favorable medium for their development, and for this reason the trade in milk should be carefully watched. Milk from dairies in which diphtheria exists should not be allowed to be sold. 8. The disease found in many of the lower animals, resembling diphtheria, as in pigeons, chickens, calves, and hogs, is not caused by the bacillus of human diphtheria, and for this reason is not to be feared as a source of infection for man. 9. The statements of Klein regarding the etiological identity of the disease in cats, as observed by him, with diphtheria in man, are not convincing, and require further proof. 10. Lesions of the mucous membrane of the outer air-passages facilitate the development of the diphtheritic virus, but susceptible persons can take the disease without any such lesion. 11. At times when diphtheria is about, patients should take especial care to keep the upper air-passages clean: i. e., the mouth, nose, and pharynx. In addition to this it might be well to institute prophylactic mouth-washing and gargling with aromatic waters, or corrosive sublimate solutions of the strength of 1 to 10.000. 12. The existence of a distinct meteorological factor, favorable to the spread and development of diphtheria, has not yet been demonstrated with certainty.

THE ARTHRITIC DIATHESIS AND PULMONARY TUBERCULOSIS.

Dr. Sokolowski, in the *Correspondenz Blatt. f. Schweizer Arzte*, (*Deutsch. Med. Zeit.*) draws attention to the intimate relations which he believes to exist, in many cases, between the arthritic or uric acid diathesis, and tuberculosis of the lungs. He remarks that it is a surprising fact, that the same bacillus of Koch should in one case bring about an acute disease terminating fatally in a few weeks, while in another instance it brings about a chronic form of disease which may extend over many years. Although a number of theories have been put forward to explain this, nothing certain is as yet known about it; on the other hand, we know from clinical experience that certain other diseases present at the same time may affect the tuberculosis differently; some of them, such as diabetes, may have the effect of accelerating the destructive process going forward in the lungs, while others seem to have a distinctly inhibitory or hindering action. To the latter group Sokolowski

would add arthritis, or more properly speaking, the uric acid diathesis, and he states his position, which is based upon a long series of observations extending over many years, as follows:

1. The chief disturbances, where the uric acid diathesis and pulmonary tuberculosis occur in the same patient, are not of the lungs, but of the other organs and of the general condition, such as progressive, increasing weakness, gastroenteric catarrhs, joint pains, etc. In these patients the tuberculosis of the lungs makes its appearance very gradually, and runs its course slowly and insidiously. This latter circumstance the author is inclined to attribute to the arthritis, because in all of such cases observed by him symptoms on the part of the joints existed long before the slightest sign of pulmonary trouble was noted.

2. All of his cases of this character progressed without much fever; hectic appearances were uniformly absent.

3. The occurrence of bloody sputum and free hæmorrhages from the lungs was often observed.

4. The physical signs evinced on examination of the lungs were very meagre; the existence of destructive processes in the lungs could never be clearly ascertained.

5. The subjective symptoms on the part of the lungs were few. The cough was dry; only occasionally were bacilli to be found in the sputum; dyspnœa was slight in amount.

6. On the whole, this form of phthisis presents many points of resemblance to the fibrous form. The growth of connective tissue, however, appears to be a secondary process, which comes after a tubercular inflammation of the apices has run a favorable course.

The diagnosis of this form of phthisis is easy, and from what has been said, it is apparent that it is of importance to examine the lungs of arthritic persons.

When tuberculosis of the lungs develops in a patient of the uric acid diathesis, the prognosis is fairly good.

As to treatment, much of it must be directed toward relieving the arthritic symptoms. Change of climate, together with the use of mineral waters containing alkaline chlorides or saline alkalies will sometimes be of much service.

Regarding diet, the author refers to the fact, ascertained after the most careful analyses, that milk imtensifies the acid reaction of the urine and increases the amount of uric acid excreted.

The "Potato Cure."

Readers may remember the article which went the rounds of the various medical journals about a year ago, which highly extolled the virtues of potatoes as a remedy in cases where foreign bodies had been taken into the stomach. The explanation of this lay in the fact that the potato leaves a large residue in the intestine which passes on and increases the amount of fæces to a considerable extent; the foreign body is enveloped in this and any sharp corners or angles which it may possess are kept from injuring the delicate mucous membrane of the stomach and intestines. To accomplish this end large quantities of the vegetable must be eaten, and potatoes are given in every conceivable form, fluids being avoided as much as possible. The foreign body thus passes out without injury to the alimentary canal. At the time this remedy was brought to general notice several cases of recovery by its use were also noted; as the idea appears to be a very sensible one, we take occasion to abstract from the report of a case, remarkable in some respects, which was recently published in the *Medical Record.*

The case is reported by Dr. Edward Pisko, of New York, and is that of a child not quite 1 year old, who had swallowed a screw one inch in length. The screw passed on into the stomach, and did not seem to be giving much trouble when the patient was first seen. To avoid both a laparotomy and the danger of intestinal perforation, the aid of the potato was invoked, in spite of the tender age of the patient and the fact that it had just been weaned from the breast. Potatoes were given in every form, and white bread dipped in milk, but no fluids. The child continued well, and on the fifth day, after the administration of a slight laxative, the screw was passed enveloped in fæces. There was no apparent injury to the stomach, and no intestinal catarrh, and the child's general health remained unaffected. The interesting features of the case are the brilliant success of a most unassuming remedy, and the fact that the patient was so young, and scarcely weaned.

Pisko also relates the following case, which he saw in Albert's surgical clinic at Vienna:

A boy, æt. 6 years, who, two years previously, had swallowed a nail, which at that time was removed by gastrotomy, was brought there again with a nail (6 ctm. long) in his stomach. This time the "potato cure," which had been introduced in the meantime, was used, with the result that on the ninth day the nail made its appearance per vias naturales.

It would seem that we are not yet acquainted with all the possibilities of the luscious tuber, since it even bears off the palm from laparotomy.

The Treatment of Failing Circulation.

In an article in the *Medical News*, Dr. C. S. Bradfute gives a concise summary of the action and comparative value of the numerous drugs used in combating the condition of failing circulation. It is desired of the remedy in such a condition that it "should act upon the circulatory system, and in a way that will increase the strength of the cardiac contraction and promote the rapidity of the circulation; and upon other parts of the organism it should not have any, or, at least, only a minimum, antagonistic concomitant action, which would tend to annul or counterbalance the prime effect upon the heart."

Taking up the various remedies one after another, he first considers digitalis, which is probably one of the drugs most commonly used for this purpose. While digitalis "prolongs the systole and increases the vigor of the diastole," it unfortunately at the same time lessens the rapidity of the circulation and prevents a proper washing-out of waste products from the tissues by contracting the arterioles and raising the blood-pressure. In addition it retards nutrition by lessening the irritability of the sensory and motor nerves and muscular fibres, and interferes with reflex action. It has been found unsatisfactory in asthenic conditions resulting from high fever and degeneration of the muscular tissues, including the heart itself, such as are found in typhoid fever. In acute heart failure, too, it is unsuitable, since its action is manifested only after several hours. This limits its field to the failure which accompanies simple organic disease of the heart itself, and that which follows the shock due to hæmorrhage and similar conditions, and for the majority of emergencies it is not the drug.

Ammonia is most serviceable in purely functional heart failure, its action being powerful but transient. It cannot well be given hypodermically, and is difficult to use in states of unconsciousness. It is not reliable in the failure accompanying the adynamic fevers; one advantage it possesses is that its use is not followed by depression of the nervous system.

Atropine is really more of a respiratory stimulant, and is only adapted to certain cases, as in temporary depression, since it exhausts the irritability of the cardiac ganglia. It cannot be employed in uræmia with safety, since in large doses it locks up the secretions, and interferes with nutrition and the excretion of waste products.

Alcohol is safe and effective, and is probably the best general tonic in the list. It is comparatively non-toxic, and is adapted to the adynamic conditions found in fevers. In cases of sudden and profound heart failure occurring in acute diseases, as pneumonia, its use is doubtful, since it must be given in large amounts, and is therefore followed by profound depression. It is more of a prophylactic than an active combative agent.

Caffeine and cocaine are also better classed as prophylactics, and are of undoubted value in simple weakness, where there is no suspicion of beginning failure. The delirium of typhoid fever is often markedly increased by cocaine.

Nitroglycerin is an active remedy; it paralyzes the inhibitory centers, dilates the arterioles, and thus rapidly promotes the circulation. Its effect is transitory, and it must therefore be frequently repeated; on this account its toxicity renders it too dangerous for general employment. In shock due to traumatism its action often appears most happy; a rapid heart contra-indicates its use.

Ether is quick and effective in some failures following traumatism, but the effect is not sustained, and it should not be given for more than a short time.

Strophanthus, sparteine, convallaria, and adonis vernalis have not been tested sufficiently to render them worthy of consideration.

Strychnine, if not the best, is at least one of the best cardiac stimulants available. It has its objectionable features, but they can be mitigated by combining it with other agents. It is very diffusible, acts quickly, and the effect is sustained. When administered hypodermically there is at once an increase in the strength of the heart beat; the arterioles contract, and the blood-pressure rises. It increases the irritability of the muscular and nervous tissue, and thus favors nutrition-changes and a more rapid blood-current. If large doses are given a spasmodic contraction of the renal capillaries is apt to occur, but this can be avoided by using diuretics which have a selective action upon the urinary organs. The stimulation produced by strychnine is general, and very much resembles the effects of warmth. By acting upon the spinal cord it tones up the digestive function, and as it gives a diffused stimulation of the circulatory system there is a better supply of blood to the nerve centres, and a promotion of the vital functions. In using strychnine the weaker the circulation the larger the amount necessary, and in some cases rapidly increasing doses are required to maintain the effect.

Strychnine is believed to be a reliable agent when other members of the group of cardiac tonics are contra-indicated, and, to come to the test of practice, its extensive use by the author has proven very satisfactory. In a future article the author hopes to be able to indicate more definitely the extent and class of cases in which it can be most effectively employed.

MEDICAL ITEMS.

Dr. John Preston, of San Antonio, Texas, has been appointed Superintendent of the North Texas Insane Asylum.

The New York Cancer Hospital has received the sum of $40,000 from the estate of the late Mrs. George W. Cullum.

Dr. A. W. Fleming, of Denver, Col., was married on January 4, to Miss Fannie Taafe, daughter of Mr. B. P. Taafe, of this city.

To Sterilize Catgut, Kammeyer has found that the best method is by dry heat. It can be subjected to a temperature of 140° C., without affecting its quality.

To Keep Rubber Tubing Soft.—A method of keeping soft rubber tubes, cloth, stoppers and other articles soft and pliable, according to Gawalowski, consists in keeping them in a 10% watery or alcoholic solution of creolin. Before using they are simply taken out and washed in water, and after being used are put back into the creolin solution.—*Boston Med. and Surg. Jour.*

Another Arrow Poison.—Echujin, a glucocide allied to ouabaina nd strophanthin,is the latest addition to the interminable list of African arrow poisons. It is derived from an apocynaceous shrub, adenium boehmianum.

On Wednesday, January 7, Dr. Crosby, U. S. A., was married to Miss Julia Penelope Smith, daughter of Dr. E. F. Smith, of this city. The reception was one of the largest of the season.

The young couple left immediately afterward for their future home in North Dakota.

Medical Achievements in China.—Dr. Kerr, a medical missionary at Canton, has in the past thirty-six years treated over 520,000 patients, and has prepared twenty-seven medical and surgical books. He has trained 100 medical assistants, chiefly Chinese. China now possesses 104 hospitals and dispensaries, at which in 1889 more than 348,000 patients received treatment.

Detection of Biliary Pigments in Urine.—To 4 or 5 cubic cemtimetres of slightly warmed urine 5 to 10 drops tincture of iodine are added, agitating after the addition of each drop; in the presence of biliary pigments a pretty olive-green coloration is produced. Excess of tincture of iodine will produce a dirty brown-red color; normal urine at first decolorizes the iodine solution, then gives a red coloration, and on addition of an excess of iodine a dirty brown-red color.—*Amer. Jour. Phar.*

Absence of Powder-Marks no Evidence Against Suicide.—Dr. Meigs Case writes to the *Med. Record* that in two recent cases of suicide of prominent men, both of whom had evidently shot themselves in the head, there were no powder-marks visible on the skin. In another case in New Jersey there was much said at the coroner's investigation about the absence of the usual areola of unexploded powder. The improvements made of late in the manufacture of powder have apparently destroyed the value of much of the evidence hitherto regarded as indubitable.

A New Process of Cremation and Mummifying has been proposed in France, based upon the well-known and successful experiments in plating with copper or other metals, by means of electrolysis, the most delicate tissues of grasses, leaves, and skins. Certain Frenchmen have, as an experiment, actually plated a dead child. The result is a perfectly faithful statue of the subject, truer to life than any sculptor could hope to achieve. The metallic shell is strong enough to withstand shocks. To receive the electroplating of copper, aluminium, or gold, as the case may be, the skin is prepared by a bath of nitrate of silver, and the silver reduced upon it by the vapor of phosphorus, There are also various other ways of providing the necessary "electrode" on which to deposit the coating.—*Med. Record.*

The Urine in Children's Diseases.—"M. P. Binet, writing in the *Revue Medicale* on the Urology of Children, states that albuminuria is the rule in febrile infectious diseases, only slight traces existing in the majority of cases. It is generally most severe in diphtheria; independently of the necessary correlation with the fever and the gravity of the disease. The detection of peptonuria is subject to error. Peptonuria is not very common in children, at any rate in appreciable quantity. It usually coexists with albuminuria, and it is most frequently observed in diphtheria, especially in the graver forms, and in nephritis. Diaceturia is common in infectious diseases, and especially in scarlatina. It is exceptional in simple uncomplicated diphtheria." —*Lancet.*

Substitution in the Cerebral Cortex.—At a recent meeting of the Zurich Medical Society, Professor Gaule exhibited a dog from which he had extirpated the whole cerebral motor area on each side, as determined by electrical excitation. A report of the remarks is published in the *Amer. Jour. of Insanity.* After the operation the dog presented the ordinary loss of voluntary movements. Its re-education was undertaken by the author, who was successful in teaching it to catch pieces of meat thrown to it, to give either paw at command, and to use the paws in digging up buried meat, etc. In the discussion which followed, opinions were divided between the theory of an incomplete extirpation and that of the formation of new cerebral connections. The latter was the view held by the exhibitor.—*N. Y. Med. Jour.*

Antidote for Strychnia.—At the British Pharmaceutical Conference, September 2, 1890, Mr. Siebold made a verbal communication regarding the antidotes of strychnine.

In this he explained, as stated in the *Chemist and Druggist*, September 6, 1890, that he had taken fifteen minim doses of liquor strychniæ, sufficient to produce contraction of the terminal muscles, and had followed the doses, as soon as the symptoms appeared, and sometimes before, with doses of the varions antidotes. Tannin in ten grain doses was perfectly valueless. Charcoal in one-ounce doses did have some effect, but not much; whereas chloral hydrate and chloroform sufficed to entirely prevent the muscular contractions if taken in time, and injections of morphia were also useful.—*M. and S. Rep.*

The Koch Treatment.—The following dispatch to the London *Chronicle* of recent date, gives the adverse opinion of Virchow on the Koch lymph:

"Prof. Virchow delivered a lecture before the Berlin Medical Society, giving the results of 21 post-mortem examinations made on the bodies of patients who had died after being treated with lymph according to the method employed by Prof. Koch. These examinations had extended from the time the remedy had been first

employed up to the end of December. Prof. Virchow declared that the injection of the lymph increases the bacilli in the body and causes them to migrate to portions of the body previously unaffected, thus virtually generating a new affection. The professor also said that the lymph invariably causes intense hyperæmia in various parts of the body and endangers the life of the patient.

It had not been clearly proved that the lymph would destroy tuberculosis, and it was dangerous to operate on weak patients. He declared that much patient experimenting with the lymph was still necessary to establish a clear judgment of the new remedy."

CORRESPONDENCE.

LIME WATER IN RHUS POISONING.

FORT SCOTT, KAN., January 8, 1891.

EDITOR WEEKLY MEDICAL REVIEW: Anent the use of "blackwash" in rhus poisoning, as given by Dr. J. A. Kite, in *Med. News*, and published in your issue of the 3d inst., I wish to say that in my opinion the lime water of the lotion is the active agent.

I am very susceptible to rhus poison, and know that if I can bathe the exposed surfaces with lime water soon after exposure, the effects of the poison do not develop.

The use of lime water or the old fashioned carron oil has been quite as satisfactory in my experience after the inflammation had developed, as Dr. Kite says the use of black wash has with him.

Yours truly,

W. D. BLATCHLEY, M. D.

SELECTIONS.

CHEMICAL STUDY OF THE SUMMER DIARRHŒAS OF INFANCY.

1. There are many germs, any one of which, when introduced into the intestines of the infant under certain favorable conditions, may produce diarrhœa.

As has been stated, many different germs have been found in the intestines of infants suffering from summer diarrhœa, and we now find that three species of these are capable of producing chemical poisons, which induce effects substantially identical with the symptoms observed in the infants, and it is not unreasonable to suppose that many other of these germs produce similar poisons.

2. Many of these germs are probably truly saprophytic.

A germ growing in the intestines does not necessarily feed upon living tissue. The food in the duodenum before absorption has no more vitality than in the flask. Moreover, the excretions poured into the intestines from the body are not supposed to be possessed of vitality. A germ which will grow upon a certain medium in the flask and produce a poison, will grow on the same poison, provided it is not destroyed by some secretion of the body.

3. The only digestive secretion which is known to have any decided germicidal effect is the gastric juice; therefore, if this secretion be impaired, there is at least the possibility that the living germ will pass on to the intestine, will there multiply, and will, if it be capable of so doing, elaborate a chemical poison which may be absorbed.

There is no longer any doubt that the acid of the gastric juice has a marked germicidal effect upon many micro-organisms. I have found that an exposure of a 2% solution of hydrochloric acid for half an hour will destroy Eberth's germ and two poison-producing bacilli which I have isolated from drinking water that was believed to have caused typhoid fever. Although the germicidal effect of this acid has not been tried on the bacteria under consideration, I doubt not that it will be found to be considerable.

The chief reason why the breast-fed child has a better chance for life than the one fed upon cow's milk, lies in the fact that the former gets its food, germ free; but a second reason is to be found in the larger amount of acid required to neutralize the cow's milk, as has been pointed out by Escherich. The gastric juice is the physiological guard against infection by way of the intestines.

It is also possible that some of the secretions poured into the intestines have germicidal properties, or that the cells, in absorbing the poisonous albumens, may to a limited extent so alter them that they are no longer poisonous, or that in a perfectly normal condition the liver may be able to prevent these poisons from entering the general circulation without change. These are all possibilities which science at some time in the future will investigate.

4. Any germ which is capable of growing and producing an absorbable poison in the intestine is a pathogenic germ.

It is not necessary that a germ be capable of growing and causing disease and death, when injected under the skin or into the blood, in order to establish its right to rank with the pathogenic germs. In the blood the organism is acted upon by a wholly different fluid from that with which it is surrounded in the intestine, and the germicidal properties of the blood have been unquestionably demonstrated.

5. The proper classification of germs in regard to their relation to disease cannot be made from their morphology alone, but must depend largely upon the products of their growth.

As I have before demonstrated, three micro-organisms, differing sufficiently to be recognized as of different species, produce poisons, all of which induce vomiting and purging, and, when used in sufficient quantity, death. Morphologically, these bacilli may not be

closely related, but physiologically they are near akin.

If these deductions be true, we will try to avoid the introduction into the alimentary canal, not only of the so-called specific pathogenic germs, but of all toxicogenic micro-organisms.—Dr. Victor C. Vaughn, in *Archiv. of Pediatrics.*

MORPHINISM; ITS PREVENTION AND CURE.

After calling attention to the various means begetting the morphine habit, the author says:

To prevent the increase of this disorder it should be impressed upon the minds of every one that opium and its narcotic alkaloids are dangerous poisons which should be used, if used at all, with great caution. When the exhibition of the drug is necessary the patient should be kept in ignorance of what he is taking. The doctor should dispense his own morphia and opium (preferably in pill or tablet form of definite quantity). He should under no circumstance send a prescription containing an opiate to a pharmacy.

The pharmacist is in law required not only to refill a prescription, but he must give a copy of the recipe to his customers if it is demanded.

Physicians should be especially careful in administering opiates in trivial cases or in cases where the demand is likely to be continued, as in rheumatism and hysteria. Neuralgias, sudden colics, toothaches, even if severe, will often be relieved by sinapisms, hot or cold applications, or one of the bromides, or a single dose of chloral in extreme cases. Chloral drinkers are exceedingly rare. In an experience of fourteen years I have not yet met with a single case.

Morphinism is regarded by the general public as incurable. Many physicians have the same opinion, and private hospitals are much in favor. There is a dearth of information on the subject in our standard works on practice, and some completely ignore the subject. As nearly all "opium fiends" wish to be cured, charlatans and quacks thrive on such as possess means.

Removal of the cause, discontinuance of the drug, is the first essential. Immediate withdrawal is cruel and unscientific; it is impossible without restraint or constant espionage.

Rapid withdrawals have the same drawbacks. Both methods are often dangerous, and the tendency to relapse is greater than in the weaning method or gradual withdrawal. I am confident that no case, however chronic, is incurable, provided the general health is fair. Each individual case requires special study. Diathesis should be carefully considered, and if syphilis, struma, rheumatism or tuberculosis exist, specific treatment will be required.

The confidence of the patient in the physician's power to cure is of the first importance. To secure this, assure him that the substitute you employ will absolutely take the place of the drug, and that he must at once and forever stop taking it. If he finds that you are giving him opium, he will have no confidence in your methods or remedies. Most sufferers who wish to be free have tried the tapering-off process and failed.

Ascertain the time and exact quantity of the drug the patient has been taking *per diem*, and do not begin to diminish the dose until the confidence of the patient is thoroughly established in the substitute. For the past six years I have used the following, and have positively cured over forty cases, modifying it at times to suit special cases:

℞ Morph. sulph. or tr. opii, - q. s.
Fluid ext. viburni prunifol., - ℥ss.
Elixir ammoniæ valerianæ, - ℥iij.
Elixir sodii bromidi (gr. v to the ʒ), - - - - q. s. ℥vj.
M. Sig. Teaspoonful when required.

This is a mixture from which one is readily weaned when the opiate is withdrawn, and I am sure that the combination possesses special value in these cases.

It is well to take plenty of time in decreasing the drug. Chronic cases who have been taking ten grains or less or morphia a day, will usually stand the subtraction of a grain a week, though some will notice a less quantity.

The most persistent case I ever encountered was that of an hysterical subject who became pregnant soon after beginning treatment. It was impossible to wean her completely until after childbirth, which resulted in a fine healthy boy. This case proves that this treatment may be continued for months without evil results to either the mother or the child *in utero.*

In smell and taste this mixture is truly a *mistura diabolica*, and many patients will tell you that they can do without your horrible stuff long before the opiate is entirely excluded.—W. I. Cottel, M.D., in *Am. Pract. and News.*

ABDOMINAL SURGERY—SOME OF ITS RESPONSIBILITIES.

Dr. T. H. Manley (*Jour. Amer. Med. Association*) says:

Enough has been taught to admonish us to proceed with caution when we contemplate an operation which involves an abdominal section.

The melancholy statistics of interference in gunshot or penetrating wounds of the abdomen, must not be unheeded, and operators should proceed slowly with exploratory incisions, until the art of diagnosing and localizing lesions within the peritoneum has reached greater perfection than at present obtains.

The varied modern tests of intestinal laceration having been proven to possess no substantial value, we are yet without means of determining whether or not the intestinal tube is wounded, where, or to what extent, and hence are unable to intelligently direct remedial measures.

Though anæsthesia and antiseptics have been a pre-

cious boon to mankind, and have lent their aid in the entire revolution of surgery, still it does seem that our progress to-day, in dealing with serious abdominal wounds or lesions, is but a little in advance of the eighteenth century; and this must be so, while we are in doubt as to the nature and extent of the lesion, and have no way of estimating the degree of shock, which sundry individuals possess.

While in penetrating wounds of the intestine the indications for treatment from a mechanical standpoint are clear to fulfill those without compromising life, the latter is the difficulty which yet remains.

I have repeatedly endeavored to demonstrate that very many acute affections may be safely limited to medical treatment, without any surgical aid; though I do not ignore the fact, that in the hands of the skilled and experienced operator, many of those grave cases are the safest, and that there are not a few in which the surgeon's aid is imperatively demanded. What I wish to combat is, that surgical should not be the only treatment, and likewise the prevailing impression that abdominal operations are not always serious. I wish to strongly emphasize what has lately occupied my attention, viz.: That recovery from an operation is not a cure in any sense.

I regard very many of our modern operations as not only reckless mutilations, but interferences, vicious and unnecessary, which are invariably followed by most serious consequences to the patient. I am not aware that Christian ciwil law authorizes, or justifies us in unsexing a woman, unless her life is in positive peril, or without her own and nearest relations' full consent.

It is incontestable that in these days the contest for bread is close, and with our profession which gives gratuitously more in the way of free service than any other, the temptation to do these operations, which pay large fees, is very great, especially when the contingent fee is always in hand, whether the case goes ill or well.

The most valuable operations are the simplest. But after all, the mere manual part, in my mind, is the inferior, as the real art lies in knowing and recognizing when the time comes that Nature is powerless and the scalpel must be taken in hand.—*American Lancet.*

RECTAL ALIMENTATION.

Dr. Weaver formulates the following conclusions which are quoted in the *Medical News* by Dr. A. H. Hills:

1. By the use of enemata life can be sustained indefinitely with little, if any, loss of weight to the body.

2. In a large proportion of cases in which rectal aliment is used, true digestion of albuminous, saccharine and fatty food takes place, by virtue of a reversal of the normal peristalsis of the alimentary tract.

3. While this is the case, there are doubtless instances in which retrostalsis does not occur, and for that reason the food used should first be artificially digested before being injected into the rectum.

4. While milk, eggs and brandy are the best aliment for rectal nutrition, no one article should be used for too long a time, but frequent changes should be made, observing the greatest care to prevent irritation of the rectum, or intolerance of that organ for the nutriment required.

5. The enemata should, if possible, be administered by the physician himself. When difficulty in retaining the aliment is encountered, the colonic method is preferable, the food being propelled through a rectal bougie. The food should be of the temperature of the body.

6. The rectum having once become intolerant of enemata, absolute rest must be given to that viscus for a few days, and reliance be placed on nutritious inunctions of the surface of the body.

7. For rectal alimentation there exists a wider range of usefulness than has heretofore been assigned to it. It is not only appropriate in the severer forms of chronic disease of the stomach and œsophagus, but is indicated and should be utilized in the management of all acute diseases when, from any cause, the stomach becomes intractable and rebellious.

8. In diseases of the stomach, even when a portion of the food ingested is retained by that organ, only to undergo fermentation, inducing thereby pain and distress, it is more logical to resort to rectal alimentation, not as an adjunct to, but a substitute for, stomachal ingestion.

9. Certain organic lesions as well as functional disturbances of the stomach are curable by means of rest to that organ, and by no other means. In rectal alimentation we have a safe and sure means of nutrition, pending the necessary period of rest to that organ.

SPECIFIC TREATMENT OF TYPHOID FEVER.

Dr. J. H. Van Eman writes in the *Journal of the American Medical Association:* Within the last decade, stimulated by the investigation of Pasteur, of Koch, of Sternberg, and of hundreds of other active, thinking, working members of the profession, darkness is rapidly being superseded by light, and we are fast recognizing the truth that all our contagious and infectious diseases are caused by a living entity within the body; a germ that has shape, and form, and laws of self-preservation, and reproduction, just as definite and positive as that of any living organism. The veriest tyro in medicine is beginning to understand something, at least, of the life-history of bacteria and their agency in the production of diseases.

In the early part of the fall of 1889, following up the conditions under which pathogenic germs can be cultivated and reproduced, my attention was particuliarly drawn to the fact that all such germs could only be cultivated in an alkaline medium, and with the converse of this truth, as well, that let a culture fluid, perfect in every other respect, be either intentionally or accident-

ally made even slightly acid, the germ growth was at once arrested, and not only that, but the germs already in existence soon become feeble and then cease to exist.

Acting on my theory, I at once began the treatment of my typhoid cases, as soon as I was reasonably certain of my diagnosis, as follows: For the first 36 to 48 hours I gave calomel in five to ten-grain doses until I had very thoroughly cleansed out the alimentary canal, for the purpose of either sweeping out or destroying all typh-germs that had not migrated from the intestine. While doing this I sterilized all foods and drinks, thus preventing the ingress of new germs. This being done, I put the patient on half drachm doses of dilute muriatic acid given in syrup and water, every three hours, night and day. Now as to results. In six cases thus treated, all recovered. In all the diarrhœa was promptly arrested and never gave any further trouble; in fact, some little attention was required to keep the bowels open. In no case, after the institution of this treatment, did the delirium occur. Neither sordes nor dry cracked tongue in any cases. In five of the cases the duration of the disease was under twenty-one days. No complication existed, and convalescence was uninterrupted and unusually rapid. In none of the cases did the evening temperature go above 103° after treatment was well commenced. One case only, which began with an attack of la grippe, was protracted in its course, lasting nearly five weeks and having as a complication hæmorrhage of the bowels, which, while rather profuse, was readily controlled by morphine and ergot per orem.

MENORRHAGIA AND METRORRHAGIA.

BY PROF. WILLIAM GOODELL, M.D.

This woman I am told is suffering with severe uterine hæmorrhage both at and between the times of her menses, constituting what is known respectively as menorrhagia and metrorrhagia. Such severe bleeding occurs from enlarged uterine glands which, however, are not really new tissue. They are found in old maids, in married women who are trying to avoid pregnancy or when they have passed the menopause. I curetted this woman last July and the operation has been repeated twice since by Dr. Taylor—the last time only ten days ago, since then she has been bleeding more or less constantly and, in addition to this, she has been dodging her periods for several months.

This circumstance reminds me of a case I now have under observation of a bad tear of the cervix uteri resulting in ectropion which I considered benign and in which I curetted the endometrium; the results of it remain to be seen.

The results of such operations as this depend upon their being done with perfect antisepsis. I am now letting my instruments stand in a deep conical glass vase so that they can the more easily be covered with the 1–1000 solution of the bichloride of mercury solution, although this solution is very hard on the cutting edges of them. I now swab out the endometrium while Dr. Taylor syringes out the vagina with this same fluid. After these precautions, the surface of the uterine cavity is curetted. The mass that comes away is red and jelly-like and, were I not afraid of shocking your appetites, I would say that it reminds one of colored tapioca pudding.

I wish now to be certain as to whether there is a polypus present and, therefore, I feel around in the uterine cavity with a pair of dressing forceps that I am in the habit of using for this purpose. There is none present and, just at this point, I take note that the uterine cavity gives a measurement of three and one-half inches. Having finished scraping off the endometrium I now wipe the cavity of the womb with a piece of cotton on the end of a probe. This cotton is saturated with a 1–1000 solution of the bichloride of mercury solution, and then, after again syringing out the vagina and making myself doubly sure that all is clean, I introduce into the vagina two five-grain suppositories of iodoform, and to-morrow the nurse will begin to syringe out the vagina twice daily with a 1–4000 bichloride solution of mercury.

To keep the uterus contracted and unirritated, I shall give her three times a day ten minims of the *fluid extract of ergot* together with ten grains of *chloride of ammonium* and five grains of *bromide of sodium* in half a tumblerful of water. If the exhibition of ergot and injections of hot water into the vagina are insufficient to control uterine hæmorrhage, one of the most unfailing procedures is to curette the uterus and then continue these two former remedies, if they be necessary. It is a good plan, too, to resort to the curette in the case of a fibroid tumor when you want to tide a woman over the period of her monthlies. The possible danger in its use is that in old women when the walls are thin you may go through into the peritoneal cavity. I can recall two cases in which the side of the uterus was perforated. I anxiously watched for the results. Fortunately in neither case was there any rise in temperature. The younger woman got well all right and the older lady with metrorrhagia, which in old ladies generally means malignancy, died some time after of another disease.—*Med. Mirror.*

THE TREATMENT OF CHEST PAIN IN BRONCHITIS.

By M. W. Everson, M.D., Pittsburg, Pa. During the recent epidemic of influenza (epidemic bronchitis), my attention has been attracted to the amount of pain in the chest manifested by bronchitis, and the means of relief afforded by the different medicaments. The pains complained of are not confined alone to the area under the sternum, but radiate all over the chest, both anter-

iorly and posteriorly, and oftentimes are most annoying to the patient and troublesome to the physician.

The remedy which I find gives most relief in these cases is the salicylate of sodium combined with nitrate of potash, and a minute quantity of Dover's powder, given preferably in capsules, and I have been using the following formula with marked sucess, viz.:

℞ Sodii salicylat.,
Potassii nitrat.,
Pulv. ipecac et opii, - - aa gr. ij. M.
Fiat capsula j.

Sig.: Every three hours.

This formula relieves pain to a remarkable extent, and is also curuative to the existing inflammation, with the assistance of the ammonia salts as the rales become moist, or of the iodide as the inflammation tends to run down into the smaller tubes. The knowledge of the value of the iodides in inflammation of the bronchus, where the process tends to run down into capilary bronchitis (the rales becoming sibilant), and even into catarrhal pneumonia, is inestimable, and the most admirable results may be obtained by the administration of these salts, particularly the potassium salt. I generally give 1 to 2 grains of potassium iodide every three hours, either alone or in combination with other remedies, using at the same time, if the case is very severe, dry cups over the chest walls.

Lastly, counter irritation is very useful in chest pain and bronchial inflammation, applied in half the strength of the tincture and alcohol, the latter being added to prevent vesication,which in most cases is not either necessary or desirable.—*College and Clinical Record.*

Acute Obstructive Diseases of the Lungs.—Dr. A. H. Smith (*Amer. Jour. of Med. Sci.*) says:

1. In acute pulmonary obstruction, the danger being from exhaustion of the right heart, the pulse at the wrist does not give reliable indications as to the gravity of the condition.

2. This can be appreciated more correctly by studying the pulmonary circulation by the aid of the pulmonary-valve sound.

3. Marked accentuation of the pulmonary-valve sound indicates a fairly vigorous right heart laboring to overcome resistance in the pulmonary circulation.

4. Decrease of a previously existing accentuation with only moderate dyspnœa, indicates decrease of pulmonary obstruction.

5. Decrease of accentuation with increase of respiratory distress, indicates that the right heart is becoming exhausted.

6. Relief is to be sought: (*a*) By regulating the diet in conformity with the diminished power of digestion and sanguification: (*b*) By the use of medicines which dilate the arteries and promote transference of blood to them from the veins: (*c*) By the inhalation of oxygen gas: (*d*) By artificial respiration: (*e*) By placing ligatures about the extremities in order to retain the blood in them and prevent its return to the heart.

A Sedative for Babes.—All of my medical friends who have made use of these prescriptions report the most gratifying results:

℞ Camphoræ monobromatæ, - gr. i-ij.
Extracti hyoscyami fluidi, gtt. v-viij.
Syrupi lactucarii (Aubergier's) oz. ij.
Tere optime. Fiat mistura.

Sig. One teaspoonful p. r. n.

This is my "soothing syrup" for babies, and I use no other.

℞ Camphoræ monobromatæ, - gr. xvj.
Ext. hyoscyami fluidi, gtt. xvj, dr. ss.
Syr. lactucarii (Aubr's), q. s. ad. f. oz. viij.
Tere optime. Fiat mistura.

Sig. One teaspoonful every hour until relief is obtained.

Excellent in restlessness, spasms, deliria, and in all cases requiring a sedative, an anodyne, an antispasmodic or a somnifacient.

I hold opiates in abhorrence and prescribe the above as their proper succedanea.

Think of the homes made desolate by opiates! Think of the "Massacre of the Innocents" daily wrought by laudanum, paregoric, Godfrey's cordial and Mrs. Winslow's soothing syrup! Prof. George W. Winterburn, Ph. D., M.D., of New York, asserts that the last mentioned contains one grain of sulphate of morphia to the ounce. *Dii immortales!* If that be the case thousands of little graves have been dug by that Borgia, whose photograph ought to be in the rogues' gallery instead of sickening our gaze in the daily press. According to her directions, a child six months old takes one teaspoonful, equivalent to at least one-eighth of a grain of morphine to the dose. I say at least for we physicians know or should know that the modern teaspoon contains two drachms, and therefore this lethal compound plied with the spoon now *en vogue* contains one fourth of a grain of morphine.

In view of the fact that Mrs. Winslow's soothing syrup can be found in almost every home, I think it is the duty of every physician to warn parents, guardians, nurses, etc., against its use.—E. Van Goidtsnoven, M. D., Atlanta, Ga., in *The Dixie Doctor.*

Sub-Iodide of Bismuth in Atonic Ulcers.—Since the publication of an article on this substance, by Swetnam, in the *Canadian Pract.* in 1887, Necker, of the University of Toronto, has made frequent use of this drug in the treatment of ulcers and wounds, only employing it when the wounds seemed "atonic." After an experience extending over a few years he concludes that it is superior to iodoform and the majority of other dressings. Having powdered the surface over with the drug, he applies cotton-wool or antiseptic gauze, and, in addition, puts on a bandage to exert some degree of pressure. At the end of the third day the dressing is removed, the wound cleaned with an aqueous solution of carbolic acid, and the dressing reapplied.

An Efficient Method of Renoving Foreign Bodies from the Nose.—Dr. S. Johnson Taylor (*Lancet*, November 8, 1890) describes the following method of removing foreign bodies from the nose, which was successful in the case of a child of three years with a large bead in the nostril. The procedure is simply Politzer's method of inflation through the unobstructed nostril.

The nozzle of the Politzer bag is introduced into the nostril which does not contain the foreign body, and if the patient is old enough he is requested to swallow a monthful of water. During the act of swallowing the bag is vigorously compressed, the bag is vigorously compressed, the escape of air from around the nozzle being prevented by grasping the nose with the thumb and forefinger. At the moment of compressing the bag the foreign body will probably be blown out. In the case of a young infant the compression should be made while the child is crying.

Ergot in Phthisical Sore Throat.—Dr. Benjamin Brooke, writing in the *University Medical Magazine* for October, reports favorably of the use of ergot in what he calls "the ordinary sore throat of phthisis." The most prominent symptoms in the class of cases to which he refers are thirst, dryness of the mouth and throat, and dysphagia. The pharyngeal mucous membrane is congested, and in some cases there are small ulcers. The fluid extracts of ergot, in doses of 20 minims, produced very great amelioration of the symptoms in a few days. The cases were observed in the Philadelphia Hospital, in the service of Dr. William E. Hughes, who in a note states that the effect upon the pharyngeal congestion was very marked within a few days. He adds, however, that after cessation of treatment the symptoms had a tendency to recur; another exhibition of ergot again alleviated them, though the relief seemed to be rather less pronounced.—*Brit. Med. Jour.*

Strong Tincture of Iodine.—One of the best solvents of iodine is methylated spirits of wine. With this any strength of solution can be made in a very short time, which is a convenience when we wish to apply a powerful remedy to a very limited area.

The Direct Route to Louisville.

The Louisville, Evansville & St. Louis "Air Line" is now operating over its line, the finest solid vestibule Parlor Dining Car train running out of St. Louis. These new trains were built expressly for this line, making the only vestibule service between St. Louis and Louisville. This route is sixty miles shorter than any other between these points, and consequently is much shorter to all south-eastern territory via. either Knoxville or Chattanooga. For full particulars call on or address H. E. Morris, Pass. Agt., 103 N. Broadway, St. Louis.

USEFUL FORMULÆ.

Alimentary Regimen in Bright's Disease.—The climacteric prescriptions consist in avoiding humidity and sudden changes of temperature.

1. As dietetic prescriptions, avoid highly-seasoned or irritating articles of food; suppress eggs; use the milk diet, pure or mixed; avoid wine, brandy, liquors, and even beer.

2. Regime of Senator. It consists in authorizing the use of white meats and pork; in avoiding dark meats, and in using vegetables and milk. Senator permits the use of wine and water as a beverage.

3. Regime of Semmola. It consists in the observation of the preceding prescription, and in the use as a beverage of the following solution, to be taken in the twenty-four hours:

℞	Iodide potassium,	15 grains.
	Phosphate soda,	30 grains.
	Chloride sodium,	75 to 90 grains.
	Water,	32 ounces.

4. Regime of Bamberger. It consists in completing the lacteal alimentation by the use of tonics and preparations iron. He recommends the following preparations:

1. Pills of Perchloride of iron. These pills are administered in doses of from three to six pills a day:

℞	Perchloride of iron,	1-3 grain.
	Pulv. menganthes,	5-6 grain.
	Ext. taraxacum,	q. s.

2. Pills of Sulphate of Iron:

℞	Sulphate iron,	4 scruples.
	Bicarbonate soda,	4 scruples.
	Ext. dandelion,	q. s.

Make sixty pills. Six daily—three in the morning and three at night.

3. Potion of Quinquina:

℞	Bark of the gray quinquina,	5½ drachms.
	Infused for half an hour in boiling water,	7 ounces.

Add,

Syrup of bitter orange peel, - 5½ drachms.

A teaspoonful every two hours.—*Ther. Analyst.*

Lumbago.—

℞	Iodide potassium,	ʒiv.
	Bromide potassium,	ʒiv.
	Tinct. colchicum (seeds),	ʒij.
	Syr. bitter orange peel,	℥jss.
	Distilled water,	℥v.

M. Sig.: One teaspoonful three to four times a day. —*Ther. Analyst.*

For a Tonic in Gastro-Hepatic Cases:—

℞	Tr. nucis vom.,	gtt. v.
	Acid hydrochloric dil.,	gtt. x.
	Glycerini,	gtt. x.
	Aq. laurocerasi, q. s. ad	f. ʒ j.

M. S. Before meals.—*Ther. Analyst.*

ORIGINAL ARTICLES.

ETIOLOGY AND TREATMENT OF TYPHOID FEVER.

BY A. L. WAGNER, M.D., CINCINNATI, OHIO.

Have you ever stopped to think why there are such things as symptoms in disease, and what are their causes? Why does not one in sickness go on to recovery or death without any such manifestations as symptoms?

As compared to the time since the creation of man, the short period that our profession has been able to render any service to mankind, is but a day. These same symptoms were manifest in systems of the preglacial man and long before they could be interpreted or associated as they now are. Were they, then, as now, accepted, simply as signs of disease, the perverted and morbid conditions signaling to the physician to annihilate them and thus cure the disease which the symptoms in the aggregate are supposed to represent?

We must distinguish between signs and symptoms, in that the fever in pneumonia is a symptom, while crepitation, dullness on percussion, rusty sputa, all symptoms, which grouped together constitute a sign.

Now I wish to show that in a given disease there are symptoms and sets of symptoms or signs, which are essentially different and, though speaking in the same tongue, are dwelling upon a different topic. For example, and a more thorough study of disease, it seems rational to divide the symptoms as follows:

1. Those that are due to, or really are the morbid materials, *e. g.*, the hæmatozoa malariæ of ague, found by the microscopists, or the alkaloidal ptomaines in disease due to germs, discovered and shown by our physiological chemists.

2. Those that are Nature's remedies for the disease under consideration, which are directed toward the destruction, removal or modification of a foreign substance which is incompatible with natural function. Nature's remedies are her only resources, and differ to some extent from those the physician can exhibit, but if the cause of disease is to be removed and recovery to take place the physician must follow Nature's lead or leave her unobstructed. In typhoid this set of symptoms is elevation of temperature at the expense of much tissue, to burn out or oxidize the typhoid poison, and antiseptic diarrhœa to prevent the growth of the bacillus typhosus and remove the germs from the bowels. In tuberculosis these symptoms are, fever for oxidation, expectoration to rid the economy of the poisoning material, and profuse perspiration to wash out the oxidized products from the system.

3. The symptoms of this class are those which I have designated as concomitant or occurring as a sequela to the second class, for they represent the effects of Nature's remedies or represent results from the first class and have no curative effect on the system, or rather disease. In phthisis we have wasting of tissue from the hectic fever, hæmorrhage from the lung resulting from ulceration through vessel walls. In typhoid this class of symptoms is represented by the peculiar smell of the dejections, muscular debility, hæmorrhage, borborygmus, coated, flabby tongue, etc.

4th. This class is due to the remedies that the physician applies, and is very much more variable than the preceding for the reason that the physician is more inconstant than Nature in prescribing. These symptoms are the physiological actions of the drugs administered.

In the first class, the "symptoms," above mentioned, are no doubt not symptoms at all, but pathological indications, and represent the cause of disease.

Therefore, from the foregoing, a symptom is a modified physiological function, brought about for the better adaptation of the system to rid itself of a foreign substance.

My purpose in thus classifying symptoms is to show those symptoms which it is safe to combat; those that it is safe to augment, and those that it is safe and wise to ameliorate. In all cases we know that it is safe to combat or remove the cause. In typhoid the germ must be removed and Nature is trying to do this by diarrhœa of a peculiar kind. Then combat the cause by augmenting Nature's remedies. Look to it that this is not hampered by so called concomitant symptoms, tympanites, coated tongue, hæmorrhage, debility, etc., by correcting or assuaging them.

My purpose in considering the fourth class as symptoms in a given disease, is for the better illustration of the preceding classes and to elucidate what I consider the true definition of a symptom.

For example a lethal dose of morphia is administered; this is the disease. Deep sleep, insensibility, heart failure, failure of respiration, clammy skin, vomiting at the outset, great irritation of the skin (itching), especially of the nose and lips; these are the symptoms. Now this is a lethal dose and strikes down with overwhelming force the centers and lines held in the hand of Nature, as surely as a pistol ball would; but notwithstanding this Nature reveals the line to be followed. The indications are but short-lived and are only to be noticed for a limited time after the dose, and are known as the stage of stimulation, in which the temperature is elevated, arterial pressure is increased, renal elimination hurried, respirations are accelerated and there is frequent emesis.

In typhoid the germ B. typhosus is the cause; the alkaloid typhotoxine is the disease; fever, diarrhœa, anorexia and lassitude are Nature's remedies (symptoms so-called of the disease), and furred tongue, debility, tremors, etc., are symptoms or results of the vis medicatrix Naturæ.

Etiology.

Geographical location, climate, season, age and diet are predisposing causes. It is with but the last of these I wish to deal, in conjunction with the direct exciting cause, the Koch-Eberth germ, B. typhosus. After my first case of typhoid in 1882, I began the investigation of the disease and its symptoms. My first case was in a Polish youth, and, as many a more learned physician before me has done, I made a mistake in the diagnosis. I was fresh from college and full of J. Millner Fothergills "Indigestion and Biliousness," and I pronounced the trouble subacute biliousness, and treated it accordingly; but the fever continued and though he got better my patient did not recover. On the tenth day, in company with another physician, the diagnosis of typhoid was pronounced. From the fact that my patient had grown no worse I continued the cholagogue treatment and was pleased to see the temperature normal on the sixteenth day. My next cases were treated on the same line and I began to inquire into the cause.

It will be observed that the stools in enteric fever are dark greenish-brown, which I attributed to the presence of bile and, knowing that the occlusion of the bile-ducts permits a peculiar decomposition of the intestinal contents, I arrived at the conclusion that the presence of bile in the intestines destroyed the typhoid bacillus in some manner, and consequently the absence of bile in the gut would favor its growth. I have made careful inquiry in all my subsequent cases, and have invariably found the symptoms of biliousness present. If we but compare the symptoms of hepatic congestion and the prodromes of typhoid, we cannot but note their similarity. In both we have, in the language of Loomis, "a grumbling headache, more or less aching of the limbs," a tired feeling all over, "chilly sensations, flashes of heat, and anorexia;" then we may have a slight diarrhœa, and a yellow or white fur on the tongue always from the first.

Listen to Murchison: "The symptoms of deficient excretion of bile are irregular bowels, colorless stools, loss of appetite, yellowish fur on the tongue; bitter mouth, flatulence, languor, disinclination for exertion, great depression, frontal headache and heaviness."

Fothergill adds, "I am so tired and sore all the time —as tired on waking as on retiring."

Therefore I believe whatever would cause a deficient elimination or excretion of bile would predispose to to typhoid fever, and as the most constant cause of biliary trouble is over-indulgence in albuminoid foods, I believe this to be an important factor in the causation of typhoid. Although this would be capable of experimental demonstration, I have not had an opportunity to verify it.

There is no doubt, from the experiments of Charrin and Roger, that bile is an antiseptic agent of no mean magnitude. They have shown that some of the component parts of bile are more energetic than others; especially were the taurocholates shown to be an effective antiseptic. The bile salts as above were more powerful than bilirubin. Bufallin gives us the same results. Fothergill says, "the bile coloring matters and the bile acids go together; where the one is the other is not far away." Taurocholic acid (C_{26}, H_{45}, NO_7,S.) contains sulphur and is most profuse in the presence of bilirubin. When the fur on the tongue is the brownest the taste is most bitter from taurocholate of soda.

Desiring to ascertain if bile had any antiseptic action on the typhoid germ, I obtained a pure culture of the germ from one of my cases. From this I inoculated twelve halves of potatoes. After 24 hours I applied a few drops of dissolved oxbile to two specimens. This was repeated for three days at intervals of 6 hours, and the culture made no further material progress and on the seventh day was about as much developed as the untreated cultures were on the third day. Four others I treated with the bile after 56 hours, at which time the cultivation had made a considerable progress, and although the culture continued to grow, it did so very slowly and on allowing the bile to drain off and dry, the germ growth was not continued but became dry. The potato cultures emitted the characteristic typhoid stool smell.

My second experiment on six potatoes and a test tube of nutrient gelatin, on which I used the pure, fresh bile, served to confirm the first. The conclusions to be drawn from the above are 1. Bile destroys, or at least retards, the growth of the B. typhosus and apparently does so by retarding sporification. 2. It is reasonable to suppose that bile is excreted in larger quantities, coloring the stools and aiding peristalsis to rid the system of the germ. 3. If the above are true then, in the absence of bile in the bowel the germ would find no restriction to its growth and multiplication, and the diet that favors biliousness would be a predisposing cause of typhoid. 4. If bile destroys the germ it must be one of Nature's remedies and as such should be encouraged. Who does not know that the most dangerous typhoid is seen where there is constipation? Bile is Nature's remedy.

The Cause of Febrile Movements.

Before there can be a rise of temperature there must be a derangement of the thermotaxic function of the system. That is, the avenues for escape of heat must be unstable and heat loss be less than heat production. Now if this alone constituted the phenomena of pyrexia the subject would be a simple one indeed and all that would be required would be to aid radiation and conduction of the heat. But Wood and Reichardt have shown that the matter does not end here, for a high temperature may be present and a great amount of heat loss going on; and by their calorimetric researches they and Donald MacAlister, of St. Thomas', have shown that the thermogenic function may be actively excited and the sublingual temperature be little more than the normal, or there may be little excitation of the thermo-

genic center and a very high, sublingual or rectal temperature, provided the conduction and radiation of heat be abolished or hindered. The significance of this is stated by Donald MacAlister (*British Medical Journal*, 1887, p. 556,) as follows: "The processes which issue in motion, on the one hand, and thermogenesis on the other, are associated with chemical movements in the muscle, with metabolisms whose terminal steps are accretion of oxygen and excretion of carbonic acid and water. Both the contractile and thermogenic "stuffs" are stored in the muscles, but are not the same, but as far as function goes they are the muscle. Each can be exhausted, the thermogenic sooner sometimes than the contractile. Both are upbuilt again by the circulating blood, but in some cases the contractile stuff sooner than the thermogenic. Both are affected by cold, but the thermogenic much sooner and more intensely than the contractile. We know little of the chemistry of these metabolisms. Oxygen is taken up in each and carbonic acid is eliminated, but the processes passed through between these terminal stages are more complex than simple oxidation. This in health; but if the reconstructive part of the process is inadequate or absent, the balance of accounts will give evidence of a nitrogenous residuum which is morbid. The muscle substance will appear itself to be consumed; it will no longer be what I may call merely the circulating medium of consumption. The cast out muscle molecules are not really excretionary in the sense that carbonic acid is excretionary." In fever the nitrogenized substances of the system have been consumed and for some reason. Will we say that they have been consumed by the combustion, or will we say the combustion has been kept up by them? If this tissue metabolism goes on regardless of the height of body temperature then there is some other reason beside evaporation, conduction, or radiation of the heat.

It is supposed by our physiologists (Wood, Foster, Hale, White, Kirks, Yeo) that there is a nervous center which regulates the production of heat in the animal body, which they call the thermotaxic center. If this be excited heat production is manifest. If it be depressed the normal thermogenesis does not follow. Is this not a rational conclusion? Now if this be true, is it or is it not similar to the center governing respiration, and when its function is most needed is it not called in to the field there to perform its duty? When the tissues need rebuilding they send out a dispatch over their telegraph lines to the central office, the brain, for food and the central office again wires the commissary department, the stomach, and if there be no stores on hand it is here the desire for food is manifested. The tissues feel need of oxygen. The message is flashed to the brain and thence on its switch boards the message is conveyed to the respiratory centre and the lungs are rapidly filled and emptied. Now why do these dispatches have to be sent out? Because there is some obstruction to physiological function and this obstruction must be something useless to the economy, effete or morbid matter. Where there is a demand on the respiratory center, the offending matter is carbonic acid gas. In the case of hunger, it is the presence of the materials of retrograde metamorphosis in excess of the building meterial, and perhaps more prominently is the desire for more strength through more protoplasm, blood, chyle, food. Now if there be any offending matter in the system which it is Nature's intent to oxidize or burn out, the alarm is turned in to the center governing heat production. The thermogenic stuff is there in the system and then is made the call for more oxygen. The conflagration goes on and the material is oxidized and perhaps thus rendered totally inert. What benefit is to be derived from measures directed to aiding evaporation or radiation or conduction? It is true that some of the offending matters may be washed out through the pours, or the atom lying immediately in contact with the one being oxidized may be cooled off for another day, but the material is there to be burned out and the tissues must be sacrificed to do it. Is it not far more rational to prevent the poisonous material from entering, or where this is impossible through lack of accurate, scientific knowledge, conserve the tissues as we can do by furnishing something to the system easily oxidizable which will be burned before the tissues?

By experimenting with bacteria it is ascertained that they have particular temperatures at which they thrive and grow, cease to segregate and sporify, and at which they die. The temperature at which they grow most luxuriantly is between 96°—99°, that at which they cease to segregate and sporify is 111°—114° F. Most of them die outright at 150° and the spores die at 212°—220°.

You say then that the temperature in fever has nothing to do with the germ, and only apparently makes it grow more rapidly. Granted that you may be right, but let us inquire. When the sublingual temperature is 98.6° the temperature in the hepatic vein is 103°—107°, and if the sublingual raise to 105° we have a hepatic vein temperature of 114°F.

This will not kill the germs but it is very effective in preventing multiplication by fission and sporification. Now Pasteur, Koch, Breger, Eberth, and many others tell us that the bacillus anthracis is not found in the circulating blood until one or two hours before death ensues. Breger says the same of B. typhous, when also it is found in the spleen. When they once get into the blood there is not one thing to prevent their rapid multiplication, thus causing death. Nature makes one final effort, the outlets are closed and an intense comflagration is started in the furnace, but it is too late and the patient is said to have died of hyperpyrexia. Again the disease or the poison present is not the gemr but the alkaloid manufactured by the germ, and at certain temperatures it is rendered inert or is not formed at all, or is converted rather into a less harmful product which is cast off perhaps as a leucomaine. For instance in nutrient peptone broth cultures of B. typhosus, if the temperature remain at 39° C. for 24 hours there will

be no ptomaine typhotoxine formed, but in its stead creatine, a lencomaine of less harmful tendencies, is formed. Now can we, in the face of these facts, say that pyrexia is not a remedy instead of a symptom, and that it ought not be interfered with? But hyperpyrexia? It will not occur if nature be helped.

For 2,000 years physicians have been engaged in a wild, hurried and anxious rage to discover some new thing to combat fever. They have had tartar emetic, digitalis, aconite, veratrum viride, quinine, salicylic acid, antipyrine and acetanilid, and still the fevers go on. We are told that the fever must be lowered or the patient will die. I do not believe high temperature of this kind ever killed any one. But we are told that the patient cannot live with a temperature of 106° or 107°. Of course they cannot but admit that that is no reason they die of hyperpyrexia. When the fever suddenly flashes up to such a dangerous height it indicates that the system's bulwarks have been overthrown and that the germs are circulating with the blood, or more frequently it denotes a large influx of the alkaloids or albumoses into the system, and immediately begins to burn them out, because they are there in large enough quantities to stimulate excessively the thermogenic center.

If the above be true, and to me it looks tenable, then why do we ever give an antipyretic in typhoid, and above all why do we give a cold bath? A cold bath, milk diet and lots of it. This is the present treatment. Do we expect to depress temperature below the growing point of germs or forming point of ptomaines? No, we aid conduction of heat away and also depress the thermogenic center and there is not the same amount of heat to protect the system from invasion.

But you say it cures? I don't believe it. They get well in spite of the bath. But fortunately it also helps to eliminate the ptomaines, for if it did not one or two baths would suffice. It no doubt aids recovery but it is 4 to 6 weeks in coming. Now if a treatment that allows of a normal temperature in from 12 to 18 days be advanced, why advocate an unnatural method of treatment.

We do not now expect to cure ague with quinine by depressing the temperature, but by killing the hæmatozoa malariæ of Laveran. Quinia is absorbed and circulates in the blood alongside of the microbe and destroys it by attacking its protoplasm. B. typhosus is not in the blood till very late in the disease, but exists by the million in the bowels and fæcal matter. By actual experiment I have shown that bile kills or stunts them. What shall we do? Ice bath and milk diet? Why not give a chologogue cathartic and keep it up?

Mercurials are not chologogues but they serve to eliminate any life that may be in the system. Give calomel. Salicylate of soda and turpentine really cause a greater flow of bile. Administer them. If tissue is going fast save it with alcohol.

258 Everett Street.

URETHRAL STRICTURE AND ITS COMPLICATIONS.

BY J. D. GIBSON, M.D., BIRMINGHAM, ALA.

Read before the Tri-State Medical Association of Alabama, Georgia and Tennessee, at Chattanooga, Tenn., October, 1890.

It is not my intention in this paper to worry you with an exhaustless amount of statistics and other information to be obtained from our text-books, nor to try to teach you how to cure urethral stricture with a wave of the hand or a blow of the breath; but my aim shall be to try to throw out a few buoys or signals by which other young men, traveling the same road as myself, may be able to steer clear of the shoals that I have met with.

The subjects of pathology and etiology I will pass by, as they are discussed and re-discussed with more thoroughness and ability in our text-books than I am able to give them, and our time is too valuable to waste in useless repetition.

The symptoms of stricture are plain, often so plain that "he who runs may read;" and then, again, they may be so obscure that it takes the minutest care to detect the stricture of large caliber described by Otis.

Generally, we have a gleety discharge, inability to project a stream with force, increased length of time in urinating, pain in the perineum, sometimes referred to the back and groins. Where the stricture is tight sterility is likely to follow, on account of the semen failing to reach its proper destination. Often, and I might say generally, after the stricture has advanced considerably, there is loss of erectile power in the penile organ, and in the glans penis especially.

I have seen cases in which softening of the glans penis was the only thing complained of. In tight strictures, hæmorrhoids, prolapse of the anus and other irritations about the rectum are apt to take place from excessive straining at micturition.

Frequently, the first thing that attracts the attention of the patient is retention of urine which is apt to follow a full meal or debauch, and, if not relieved, causes a rupture of the urethra behind the stricture, and the urine percolates into the tissues.

The diagnosis of stricture sometimes requires great care, especially the large caliber or commencing stricture. The general symptoms can lead us sometimes far astray, causing us to mistake a case of sub-acute prostatitis, or a deep sub-acute urethritis for stricture. To be sure of stricture, where it is of large caliber, and to detect and locate it, sometimes requires very careful exploration.

As to the location of stricture, when we come to it on the table for treatment, I believe with Otis that by far the majority of strictures are within two and one-half inches of the meatus, and that most of the strictures found back as far as the membranous portion are of spasmodic origin, and by careful manipulation and an abundance of cocaine, they can readily be passed.

When I first began treating stricture I dreaded this region, and I may admit I find trouble there yet, but usually by patience, abundance of cocaine, and careful manipulation, I manage to pass these strictures by relaxing the spasmodic condition of the muscles of this region.

I consider the spherical, or the acorn-pointed sound, the most convenient and practical instrument for the detection of stricture; while Otis and Weir and many others have their special instruments, I find that the acorn-pointed sound is all that is necessary. A great deal has been said and written in regard to sounds, but all will admit that the short curved sound of Thompson is all that is needed for dilatation, and only in rare instances is the long curve of Benique of special service. I prefer, for reasons to be given further on in this paper, instruments graduated by the French scale, which are increased only the diameter of one mm. for each increasing size.

Dr. H. C. Wyman, of Detroit, has introduced a rectangular sound, and for them claims four points of advantage, as described by him in the *Am. Lancet*.

I have never used these sounds, and I am not inclined in their favor for dilating purposes, but think that as a means of applying remedies locally to the deep urethra, they may be of service.

Urethrotomes, in tight strictures: Maisonneuve's is the best, owing to the smallness of its staff, which can be gotten, with the filiform bougie, through almost any stricture, and being curved will cut a stricture in any part of the canal. Where the stricture is of large caliber, but yet, owing to its location or great irritability, it should be desired to cut, Otis' improved urethrotome is an admirable instrument.

Treatment.

Probably no class of diseases has tried more the ingenuity of the surgeon to discover a quick and ready method of cure than has urethral stricture; and volumes might be written of the various operations and remedies that have been extolled and advocated for its cure. Indeed, the treatment of to-day, to say nothing of the long ago, is so unsatisfactory that it forms a most inviting field for the quack and charlatan, so that every day we see flaming advertisements of "sure cures for stricture and gleet without sound and without the knife." And our patients are only too apt to become allured by the dazzling promises made them, and forsake the time-beaten path, only to return later, more hopeless in mind, and the stricture really in a worse condition than before.

The treatment of urethral stricture may be, for convenience, divided into local and constitutional. The constitutional is whatever is calculated to build and tone up the patient, body and mind. It is wonderful the amount of hope the physician can inspire in these men, who are on the verge of despair, and who have watched their gleety discharge so long it has become a second nature, and whose backs have ached until it would frighten them if they should cease aching.

In these cases it is the duty of the surgeon to cheer the patient up, and indeed to make him look upon the world as through a new glass, and rejoice in the prospect of health, by assuring him that the discharge will cease, his back will be relieved, and that he shall again be a well man. This effect on the mind is no passing fancy, but is of real benefit; it will actually aid your patient, and enable you to look upon him in future with pride and satisfaction.

For the body, his digestion should be attended to, and his urine should be kept bland and unirritating, by administering the alkaline (potassium and sodium) salts, when necessary.

The diet should be plain and unstimulating, yet nutritious. All highly seasoned dishes and stimulants should be avoided.

In the local treatment of stricture I think a great deal can be done in the way of prophylaxis, by curing a case of gonorrhœa well, before it is abandoned, not stopping treatment before the disease is entirely cured. I believe, in the last or subacute stage, that the local application of an ointment of yellow oxide of mercury, through Wathen's canula, is a most effective means of cure.

In the local treatment of urethral stricture, we have much to thank our predecessors for in the ingenious instruments they have left us. Our inheritance in this line is full and complete. Sounds that are so beautiful and bright, and glide in so nicely when well oiled, make the surgeon feel like practising on himself every time he looks at them. Urethrotomes that work so nicely that he has no conscientious scruples in making his patient believe that the blade conveys no pain whatever, but will really prove a pleasure.

Our great trouble is not for instruments, but how and when to use them. The surgeon must first know how to pass the sound, but it is equally important to know which sound to pass, and also when to pass it.

Gradual dilatation is the oldest and most approved way of treating. It has stood like the mountain oak, firm and immovable before every opposition; in vain has praise of the knife, electricity, continuous dilatation and rupture been sung by many illustrious men, but they have to call upon the old curved sound to help them out in time of trouble.

If I were compelled to use only one instrument in the cure of all strictures, I would use the sound. I believe when the sound is properly used, that there are very few strictures that cannot be relieved, and better, by this than by any other means; and that the only stricture necessary to invoke the aid of the urethrotome is old, tight and unyielding strictures in the pendant urethra and meatus. Young and inexperienced men are apt to be disappointed in the sound, simply because they try to go too fast. The idea should be to dilate the stricture, producing absorption, not rupture.

I have made this mistake, and caused a stricture that was dilating nicely, to become so irritable that I would be compelled to resort to internal urethrotomy.

Of *continuous dilatation* I have only words of condemnation, except in cases of false passages, where you have been successful in getting an instrument into the natural channel.

Rapid dilatation with *rupture* is a treatment that has almost passed away, unless in the deep urethra, where some prefer it to deep internal urethrotomy.

Internal urethrotomy, while often abused, is a most potent means of treating urethral stricture; especially is it applicable for old and firm strictures in the pendant urethra and near the meatus. We frequently meet stricture in this region, the absorption of which it is almost impossible to bring about with the sound, and in these cases the urethrotome, aided by the sound, is indeed a valuable means of treatment. Where internal urethrotomy is performed, great care should be taken to prevent sepsis; nowhere in surgery do we get better results from antiseptic precautions than we do in internal urethrotomy. I generally give my patients boracic acid for twenty-four or forty-eight hours before operating, to render the urine aseptic. Immediately before operating, I let the patient urinate, and then wash out the urethra with bichloride or boroglycerid solution, and afterwards draw his urine for twenty-four or forty-eight hours, and then cleanse the urethra with the boroglyceride solution each time after urinating. Following these precautions, where the kidneys are all right, there is little trouble to be apprehended from urine fever, which is the great bugbear of internal urethrotomy.

If there is an elevation of temperature, care should be taken not to introduce the sound until fever subsides, even if that is a week.

Electricity, or Newman's method of curing stricture, was looked upon a short time ago as a great step in advance of the old way of treating stricture, but it seems to have lost some of its supposed prestige; Keyes seems to have failed with it completely, and claims that Newman himself failed on a case turned over to him by Keyes.

It is true that Newman denies this, and claims that the patient was progressing nicely, when Keyes withdrew him from further treatment.

Be this as it may, electricity has certainly received a black eye, and its virtue must have been greatly exaggerated.

Of complications I will say but little, as my paper is already very long.

Sometimes after the stricture has been dilated to its full capacity, we have a discharge from the prostate or deep urethra, which is in a state of subacute inflammation; and also I have found that when a stricture was cut too early, or while there was an acute gonorrhœa, that a troublesome gleety discharge would continue for some time. I find in these cases the application to the deep urethra, through Wathen's canula, of an ointment of the yellow oxide of mercury, a most useful remedy, sometimes acting like magic in relieving pain and curing discharge.

REPORT ON PROGRESS.

DERMATOLOGY.

BY JOSEPH GRINDON, M.D., ST. LOUIS.

The Specificity of Eczema.

Unna believes that Eczema owns a specific cause, the inoculation of a germ. This is doubtless vegetable and has its habitat in the epidermis, requiring probably a condition of the skin suitable for its recaption and development. All predisposing factors bear upon the disease only in so far as they bring about changes in the skin favorable to the germ-proliferation. In accordance with these ideas Unna defines eczema as a "chronic parasitic catarrh of the skin with degeneration, itching, and the dispositon to irritation by exudation and well-marked inflammation."

The author states that the local treatment should, therefore, always have in view the destruction of every single germ in the depths of the epidermis.—*Brit Jour. of Derm.; Am. Jour. of Med. Sciences.*

A New Treatment of Syphilis.

In seeking for a therapeutic method which should be free from the usual objections, M. Quinquand has made use of a plaster made as follows:

Emplast. diachyli,	grams,	30.00
Calomel,	"	10.00
Olei ricini,	"	3.00

This is spread on strips so that each square decimeter represents 1 gram, 20 centigrams of calomel. One square decimeter is applied over the spleen and allowed to remain for a week. It is then replaced by a fresh plaster which remains another week, and so on. This procedure is not, as may seem, empiric, but is based on the time required for the elimination of the drug. This, according to the researches of Witz, takes place chiefly between the fourth and eighth days. It attains its maximum toward the tenth day, and then remains stationary. From the eighth day exanthematous syphilides could be seen to fade. With these the treatment is as satisfactory as any known. In this manner the organism is constantly subjected to the influence of a minute dose of mercury.—*Le Prog. Medical.*

Electrolysis for Lupus.

This method is used by G. T. Jackson in lupus vulgaris. The cases were of the non-ulcerative kind and gave good results. A zinc electrode a half inch in diameter, and connected with the kathode, is applied to the patch, while the anode, a sponge electrode being used, may be applied to any point of the surface. A current of seven milliamperes was used for seven or eight minutes, once a week. A crust is formed and detaches in about a week. When the case has so far im-

proved that only isolated nodules are found, the electrolytic needle should be employed; using about half the former current-strength. This method, although slow, offers certain advantages.—*Jour. of Cut. and Genito-Urinary Diseases.*

The Treatment of Keloid.

Drs. Welch, of Passaic, N. J., and Browning, of Maysville, Ky., report in the *Medical Record* the remarkable success they have met with in the treatment of keloid. The former uses a combination of iodine and collodion and the latter one of hydrarg. bichlor. and collodion. Dr. Browning says:

"I use the bichloride in the proportion of 1 to 30 of collodion; the tumor is thickly coated with this and it is allowed to remain till it exfoliates—four or five days generally. Another and another is applied in the same way till by successive coatings the growth is reduced to a level with the surrounding surface, when the cure may be regarded as complete. Erom three to half a dozen applications, owing to extent of growth, have generally proven sufficient."

Scrofuloderma.

Unna divides scrofuloderma into two classes: 1st, That resulting secondarily from tuberculosis of other organs, as bones and joints, generally with the formation of white swellings resulting in fistulous tracts; and 2d, primary scrofuloderma. This may again be divided into two sub-classes, according as the cases begin as well-defined lupus, on points of which may appear doughy, pale-red swellings with a marked tendency to suppuration, or on the other hand, the lesions appear independently of any previous lupus. In these last cases there appears a small subcutaneous nodule, which grows towards the cutis and then slowly, though spontaneously, develops into an abscess. This spontaneous suppuration in scrofulodermata suggested to Unna the possibility of there being here more than a simple tuberculous infection, that is to say a mixed tubercle and pus-coccus infection. According as one or the other disease-producer occurred in excess in the tissues, so would the tubercular or purulent nature of the affection be the more prominent. Should the pus-cocci form the second invasion on a soil already tuberculous, they find a tissue below par vitally, one in which they could not give rise to a frankly phlegmonous inflammation and in consequence there would result a gummy softening of the tissues, a "moist caseation" or "gummy tuberculization." Dr. Leistikow applied to this theory microscopical and bacteriological tests in Unna's laboratory. He employed excised portions of scrofulodermus from which he obtained cultures of staphylococcus aureus, even from the deepest parts of nodules which had been covered with unbroken skin. He was unable to obtain cultures of B. tuberculosis. A single specimen of the latter was, however, found in sections. Numerous tubercles were, however, to be seen, and round-cell infiltration, especially in the papillary layer. The results of these researches seem, therefore, to establish Unna's theory.—*Monatsh. f. Prakt. Derm.*

TRANSLATION.

A CLINICAL LECTURE BY PROF. PETER.

TRANSLATED BY F. NEUHOFF, ST. LOUIS.

Revulsion.

I wish to speak to-day concerning an antiquated remedy, at the present time held somewhat in disdain in France and completely ignored in Germany. I shall not go back to Hippocrates, who distinguished between revulsion applied at the site of the disease and that applied in the neighborhood of the disease. Nor shall I insist on the aphorism: *duobis laboribus, simul abortis, non in eodo loco, vehementior obscurat alterum.*

I wish to say that revulsion and derivation constitute two names for a remedy which, with Prof. Grassel, I shall call "counter flow-medication."

In the therapeutics of acute diseases, it is not for us to combat the lesion itself; that is the result of what is past. We must, however, strive against the future, which is, from moment to moment, becoming the present; if we do not intervene the morbid process will entail a lesion later on.

We are powerless against atheroma, sclerosis, and fatty degeneration. We can act against the afflux, against that which is the result of an irritation. Every irritation, every appeal to sensation, provokes a movement. Thus, the infant who has been pinched utters a cry, which is a motion of the larynx. If I place an irritant, a grain of mustard for example, on the epidermis, there occurs a sensation of burning, and with this burning, and proportional to it, there occurs also a redness. What is this redness? It is a motion of the vaso-dilators, which corresponds to a transformed sensation.

Sympathy is the law of our organism. A sensation provoked by a pinch gives rise to a cry. This is an act which occurs by a diastaltic arc, and which belongs to the order of reflex acts.

When there is hyperæmia at one end of this arc, there is anæmia at the other end. Such is the scientific basis of revulsive medication.

There is no better way of characterizing fluxion than by the old saying, "*ubi stimulus, ibi fluxus,*" which means, where there is a stimulus or other irritant, thither there is a flow of blood. This flow of blood has as a consequence a congestion, either transitory or permanent, which in turn may end in hyperplasia, inflammation and phlegmon.

That which we can influence is the afflux and its results, or that which is about to occur.

It is probable that spontaneous counter-irritation first gave to physicians the idea of an artificial counter-irritation. Idiopathic erysipelas which is able to remove grave symptoms affords a good example of a natural counter-irritation. During the close of the last epidemic of influenza a man entered the hospital in the last stage of heart disease. His condition seemed hopeless, he excreted but very little urine, and his kidneys were not affected by digitalis. At this moment he took facial erysipelas, accompanied by fever and constitutional symptoms. The disease gradually spread over the hairy scalp and a part of the trunk. We now regarded death as still more certain. Nevertheless the patient got well. Diuresis appeared without the aid of digitalis, ascites disappeared, œdema diminished and was only kept up by some varices. The patient, therefore, got well without our having done anything for him. What, then, was the action of the erysipelas in this case, unless it was that of a spontaneous revulsive agent?

Physicians of an inductive turn of mind wished to imitate this action; whence the idea of blistering, which produces almost an erysipelas, for it causes a secretion at first serous, but which, later on, becomes easily purulent. These physicians intended to produce revulsion. When revulsion is produced by blistering, it becomes necessary to change the aphorism of Hippocrates from "*vehementior obscurat alterum*" to "*debilior minuit alterum*;" for the primitive morbid process is diminished.

I have said that revulsion and derivation are brought about by an appeal to reflex action. This can be easily proved.

Along the spinal column there is strung a chain of ganglia belonging to the sympathetic nervous system. These ganglia are the centers of reflex action. From them there depart nerves which run in the walls of the blood vessels, and follow the track of these vessels to the distant parts of the body, which thus find themselves under the control of sympathetic nerves. This is the case with the cranial, thoracic and abdominal cavities and their viscera. The meninges, the brain, the lungs, the heart and especially the vessels of these organs, receive nerves which come from the sympathetic. It is similar with the vessels of the kidneys, the uterus, etc. Finally, some of the nerves run into the spinal canal or to the spinal marrow. Thus harmony is established between the containing and the contained.

Let us suppose that there is a revulsion produced on the thoracic walls. It is reflected on the corresponding ganglion, and thence goes to the lungs or to the heart. A similar action occurs when the abdominal wall over the stomach is acted upon. When there is hyperæmia in one part, there will be anæmia in another part.

This can all be demonstrated by clinical observation. In a grave affection of the brain good results are very often, if not always, obtained by placing a seton in the nape of the neck, thus irritating the skin and the subcutaneous cellular tissue. What relation is there between the nape and the cranial cavity containing the diseased brain? It is that the brain is nourished by some branches of the internal carotid, and these branches receive nerves from the cervical glangia of the sympathetic placed near the nape.

By acting on these latter, an effect on the vaso motor nerves is produced.

The same thing happens in a uterus affected with metritis and in typhlitis. When leeches are placed on the hypogastrium in puerperal peritonitis, reflex action occurs through the medium of the hypogastric plexus, and the effect is so rapid that women suffering greatly see their pains disappear almost immediately.

These examples suffice to show that the revulsive action produced in the neighborhood of diseased parts is rapidly followed by a beneficial effect. I could cite many other similar observations, which have been made in the service.

Pregnant women ought to pre-ocupy our attention, since the discussion of the depopulation of France is the order of the day. Moreover, nothing is more interesting than pregnancy, during which a physiological state borders continually on a pathological state.

In July there entered a woman who was about seven months advanced in her third pregnancy. For thirty-six hours she had suffered from eclampsia, which the attending physician had not thought proper to treat by blood-letting. The patient was a robust peasant, whose first pregnancy had terminated at three months, on account of albuminuria without eclampsia. During the second pregnancy the patient had again had eclampsia, which the attending physician had cured by blood-letting. When admitted, the patient was constantly having convulsions which had been unsuccessfully treated by chloroform inhalations. The abstraction of 500 grammes of blood, however, caused the patient to become quiet and conscious, though the convulsions had previously been uninterrupted for forty-eight hours.

No doubt bleeding, which is both revulsive and depletive, had relieved the brain, for though it is possible that the epileptiform attacks are accompanied by anæmia in the beginning, the congestion of the face indicates certainly that there is hyperæmia toward the end; for it is not reasonable that the common carotid would, through the external carotid, carry blood to the turgescent face of an eclamptic patient, without carrying it at the same time to the brain, through the internal carotid.

The immediate danger having been averted, there remained something else for us to do. The patient was passing only 500 grammes of urine a day, containing eight grammes of albumen per liter. (And here permit me a parenthesis: I told you that in our case of heart disease diuresis returned after erysipelatous counter-irritation had relieved the renal congestion.) Renal congestion existed also in the eclamptic patient. This we combated by six wet cups over the loins, which acted reflexly on the kidneys, which were excreting a urine rich in albumen but poor in urea. Two days later we

applied the actual cautery, and the albuminuria diminished, while the urea increased in amount.

We alternated these revulsives with an application of tincture of iodine and the administration of 10 grammes of tincture of jalap compound, every two days for one week; and the young woman who came to us so ill, departed well on August 3, after having, however, aborted in the middle of the month.

It is interesting to follow, on the chart which we kept, the parallelism which existed between the use of revulsives on one hand, and the quantity and composition of the excreted urine on the other.

If we had limited ourselves to simply relieving the eclampsia by blood-letting, and had been regardless of the condition of the kidneys, the patient would have died some months later of nephritis. After the congestion, phlogosis would have followed.

I will speak of another case. We have in the ward a young woman who was confined about six weeks ago. At the end of her pregnancy, she had a cough and emaciation, indicating undoubted tuberculosis. Soon she was seized with dyspnœa, which rapidly amounted to orthopnœa. Auscultation disclosed harsh breathing and bronchophony on a level with the nape and in the supra-scapular fossa. These regions were dull to percussion, and the lungs, moreover, showed diminished vesicular murmur. These symptoms were evidently due to hypertrophied tracheo-bronchial glands, varying in size from that of a pea to that of a hazelnut. This hypertrophy was causd by hyperæmia brought about by tubercular changes in the larynx and lungs. There was here an urgent indication for action, as death from deficient hæmatosis seemed imminent.

We applied blisters over the nape, the scapula and the upper part of the sternum. Twenty-four hours later the patient was much improved. Four days later the difficulty in breathing and the dulness had very much diminished. The dysphagia had disappeared. The hypertrophy of the tracheo-bronchial glands had diminished very much. The pulmonary tuberculosis of course remained unchanged.—*L'Union Med.*

The Polish count who was brought into court for sequestering four children, and rearing them as animals, has been acquitted. It is reported that they had been confined each in a large, well-lighted and heated and ventilated room, well fed, and occasionally washed by a deaf mute; that they were unclad, never punished or restrained in any act; that two of the children have been confined thus three, one, four, and one four and a half years. The defence of the count was that he was conducting a scientific experiment to learn what were the natural instincts and the intuitions really innate in the humen species. The age of the children is not reported. They did not speak, and made barking, growling noises, and precipitated themselves upon their food like animals.—*Boston Med. and Surg. Jour.*

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SATURDAY, JANUARY 24, 1891.

PROPHYLAXIS AGAINST SYPHILIS BY DESTRUCTION OF THE INITIAL LESION.

From his observation and study of four cases of syphilis so treated, Dr. Vittorio Ingria (*Gaz. degli Osp.; Deutsche Med. Zeit.*,) draws the following conclusions:

1. Destruction of the initial lesion is possible, and can occasionally prevent the further development of syphilis; it cannot de denied, however, that this is a method of treatment which is doubtful and open to discussion. Operative measures are entirely out of place after Hunterian induration has set in, more so if the glands are also involved.

2. Removal or destruction of the initial lesion is to be attempted only when it is of recent date, small, and is found on parts where no great visible deformity will result; for example, the vulva, mammæ, prepuce, scrotum, etc.

3. Excision may be regarded as a local treatment of considerable worth, even if constitutional syphilis is not averted by it.

4. When the measure is unsuccessful as a prophylactic and the constitutional symptoms afterwards present themselves, no lessening of their intensity is apparent.

5. The destruction of apparently simple erosions, which have not had time to develop a syphilomatous character, is a rational procedure; and although it is very difficult to show that it is of any effect, on account of the uncertainty of diagnosis, nevertheless, in spite of the many failures of the plan which have been reported, it is justifiable to assume that it may often avert systemic infection, and for this reason it should always be employed in cases where there is much danger of syphilis and where no visible disfigurement will result.

6. Ordinarily, the probability of a favorable result is greater, the sooner the removal is accomplished. This rule, however, seems to have numerous exceptions, since there appears to be a certain unknown factor which can delay to a greater or less extent the absorption of the virus into the lymphatics.

7. Of the various methods of removal excision is to preferred if the lesion is an already developed syphiloma and is situated on a surface which is, by its mobility, adapted to the operation. If the initial lesion is situated on skin which is not freely movable on the underlying tissues, or if it is a simple erosion, then the use of the Paquelin cautery is to be preferred.

8. To arrive at a definite solution of this difficult problem, numbers of experiments are required, in which the operation of removal is carried out within from a few hours to a few days after contagion.

9. To obtain material for these investigations it will be necessary to instruct patients with simple erosions or abrasions of the skin that these apparently harmless sores may be the starting-point for constitutional syphilis, but that it may be possible to avert the latter by a timely surgical operation.

The Treatment of Hysterical Convulsions.

Hysteria is a disease which is said to be more common in France than in most other countries; for this reason the ideas of French authors as to treatment should receive some attention. In the *Revue gen. de Clin. et de Therap.*, (*Centrbl. f. Ges. Ther.*) Prof. Pitre publishes an article with the above heading, and says that in the majority of cases, the physician finds the patient in a hysterical convulsion surrounded by a host of zealous friends; some are chafing hands and feet with all their might, others are endeavoring to make her inhale salts, and others still are trying to make her swallow something. Selecting the most trustworthy person from their midst, the physician can then obtain enough information from her in an adjoining room to enable him to form a diagnosis. He should then direct bystanders to limit their usefulness to protecting the patient from possible injury, and not to attempt to immobilize the patient by force. Ofttimes leaving the patient to herself will suffice to cut short the convulsion, because by haphazard force the spasmogenic zones are frequently pressed upon, and their continued excitation is sufficient to markedly prolong the paroxysm. If the convulsions still continue, it is then well to look up the spasmogenic zones in a systematic way, beginning with the regions where they are most frequently found, that is, about the ovaries and epigastrium. Pressure on such a zone will often cause the convulsion to cease instantaneously.

This result, however, is not always constant, since there are patients who have no spasmogenic zones; with these we must proceed in a different manner. One of the most efficient procedures is moderate and steady pressure on the eyeballs, kept up for several minutes. This compression has for its object the bringing about of a hypnotic sleep. We can then let the patient sleep till she wakes up of her own accord, or we can arouse her in one of the ordinary ways, preferably by blowing upon the eyelids.

Bernheim recommends that we first bring about hypnosis by suggestion. He says to the patient: "You are not suffering; you will sleep; you are sleeping," etc. This procedure seemed to Pitre to be effective in some patients who were easily influenced by suggestion, but it is frequently of no avail, especially in those hysterical patients who have not been previously hypnotized and are therefore not very susceptible to suggestion.

Electricity is a therapeutic method whose effectiveness is beyond dispute. In the Salpetriere the continuous current is employed, placing one electrode upon the forehead and the other somewhere on the abdomen or thigh, and reversing the current frequently. To get speedy results a strong current must be employed (30 to 80 elements of the Trouve apparatus). Inhalations of bromide of ethyl, ether, chloroform, or amyl nitrite are also frequently effective.

In many cases subcutaneous injections of morphine have a powerful action, but they must be employed with the utmost caution, because hysterical patients easily become addicted to the morphine habit. Lavements with chloral also give good results.

To prevent a return of the attack, if the patient has one or more very painful or irritable spasmogenic zones, we can lay icebags over her or use a spray of ether at short intervals. If the spasmogenic zone is very active we can avoid further attacks by exercising continuous pressure upon it. With this idea in view, he had constructed for patients of the Salpetriere a sort of truss, the pad of which was made to press upon the region of the ovary. We can also modify the irritability of the nervous centers by a large dose of morphine or chloral; if the patient is susceptible to hypnotism we can suggest to her that for a certain period she will have no more convulsions.

In many cases Pitre used spectacles of colored glass with brilliant results. He states that looking through colored glasses has a powerful influence upon the nervous systems of many hysterical patients. Some colors are very irritating and immediately call forth a hysterical convulsion, others caused a hypnotic slumber, and others still gave a feeling of general ease and comfort. In many instances these sympathetic glasses used in the early stages prevented the convulsions from appearing. Pitre gives the case of a girl, æt. 18 years, whom he quickly cured by this means. With her, red was sympathetic; blue, green, yellow, and violet were indifferent. She was directed to wear the red glasses as soon as she felt the signs of an approaching attack; the effect was wonderful. The attacks were conquered, the aura appeared less often, and after a month failed to appear again. In order to combat the diathesis, however, it is absolutely necessary to carry out general treatment at the same time.

Antisepsis and Scarlatina.

Hutinel and Deschamps, in *Bull. Med.* (*Deutsch. Med. Zeit.*), begin a paper on this subject with the proposition that the complications of the infectious diseases, instead of being due to the germ or poison of the disease proper, and, therefore, in a sense, unavoidable, are really brought about by secondary infections, and are, therefore, to a great extent, avoidable.

In children with enlarged tonsils or adenoid vegetations, the oral cavity becomes a very favorable soil for the growth and development of the various micro-organisms. Indeed, the authors assert that all their cases with scarlatina, in whom the disease ran a very severe course, presented some such trouble. The authors then give the statistics of 35 cases, which came under treatment during three months. Treatment consisted in frequent and thorough washing of the mouth with a 3% solution of boric acid by means of an irrigator, and an absolute milk diet. Of the thirty-five cases, one died, which, on autopsy, showed advanced tuberculosis of the thoracic and abdominal viscera. Albuminuria was observed in six cases, but the authors do not state whether it was simply a febrile albuminuria, or due to scarlatinal nephritis. Diphtheria occurred in six cases; one of them was due to direct infection after entering the hospital; in the other five the diphtheria preceded the eruption. Recovery was in all the cases rapid. The results are certainly excellent, but the authors omit to state whether the epidemic was mild or severe. A comparison of the hospital cases with those treated by the methods outside the hospital would be in order.

Sulphate of Magnesia in Acute Dysentery.

Dr. A. W. D. Leahy reports in the London *Lancet* that in a number of cases of dysentery, in which the highly praised treatment with ipecac proved not only useless, but was in some cases actually injurious, he obtained some excellent results by the use of "Epsom salts," which consist chiefly of sulphate of magnesia. He used a solution of 210 grams of water, with magnesium sulphate added to saturation, and 300 grams of dilute sulphuric acid. Of this solution a tablespoonful was given every one or two hours till the bowels acted; according to individual circumstances he either gave morphine with the solution by the mouth, or gave instead rectal injections of starch and laudanum. One hundred and three cases of acute dysentery were treated by this method, of whom ninety-five recovered entirely in a short time. The author appends a table in which all the essential history of each case is concisely recorded.

Used in the first stage, this solution is said to work "like a charm;" fever, if present, declines; mucus and blood disappear from the evacuations, which become copious and of healthy consistence and color; tenesmus subsides, the patient loses the feeling of anxiety, the skin functionates naturally, and the patient experiences a reposeful feeling and a desire to sleep after the first few doses. In the more chronic cases, however, the results are not quite so satisfactory. After observing a number of his cases, the author came to employ the following mode of administration: Four drachms of a saturated solution of magnesium sulphate with ten drops of dilute sulphuric acid are given every one or two hours until the dejecta have almost reached their normal state, the temperature has fallen, and pain and tenesmus have subsided, after which the ordinary astringent mixture of starch with opium or tincture of cannabis indica is injected into the bowel. It is of course understood that the diet is to be carefully regulated.

The advantages which this method possesses over the ipecac treatment are, according, to the author, as follows:

1. It has no depressing effect upon the nervous system.
2. Nausea and vomiting are avoided.
3. The patients are left in a quiet, comfortable condition.
4. By the physiological action of the drug upon the mucous membrane of the intestine the hyperæmia of the latter is lessened, and it is also very probable that the formation of ulcers is avoided; if they are already present they tend to get well rapidly. The author says in conclusion, that if we take into consideration the facts that the ninety-five cases were not selected ones, that most of them were severe cases, and that the patients belonged to the poorest classes of the population, in whom vitality was at a comparatively low ebb, we will be better able to appreciate the value of magnesium sulphate in acute dysentery.

Surgical Sensationalism.

During the last week or two we have been regaled by repeated accounts in the daily press of a great surgical feat that was about to be carried out in Chicago: that of engrafting on the unhealed tegumentary surface of a member of one of the secret societies, pieces of the skin from the arms of 144 brother members. We are told that grafting from the skin of a dog had already been tried, but success did not follow; and that the only recourse left—the only hope, alas—was the sacrificing of 144 square inches of skin by 144 different human beings. The brave hundred and forty-four presented themselves, the ordeal was gone through with and we are assured that a prompt cure will result.

We do not object to this exemplification of brotherly devotion and sincere adherence to the principles of such organizations, but most certainly the parading in the newspapers of this simple procedure of skin grafting as an operation of magnitude, requiring contributions of skin from so many men, smacks strongly of the advertising methods of quackery.

MEDICAL ITEMS.

The St. Charles County Medical Society will hold its next session at St. Charles, Mo., on February 17, 1891. A good meeting is promised by the officers.

The Dietetic Gazette.—Beginning with the January number, this journal will be under the editorial direction of Dr. Simon Baruch, whose name is well known in medical literature.

A Useful Hint.—Always direct a mixture containing a soluble salt of mercury to be taken from a glass or porcelain spoon, as the mercury will amalgamate the silver, and spoil both.

Treatment of Itch.—At St. Louis Hospital, Paris, itch is treated by first anointing the body with a mixture of oil of sweet almonds (three ounces) and salol (one ounce), then rubbing in flowers of sulphur.

The Thirteenth Balneological Congress will meet in March, 1891, at Berlin, under the presidency of Prof. Lubreich. Notices of papers intended to be presented should be sent to Dr. Brock, Schmidstrasse 47, Berlin.

To Remove Plaster Bandages.—It is said that plaster of Paris bandages may be cut and removed with the greatest ease after moistening it along the line of proposed incision with a solution of caustic soda or caustic potash.

Quassia for Phtheiriasis.—Lice and other para sites are removed from the hair quicker and better by a decoction of quassia, to which a little borax and glycerine has been added, than by almost any other known means.—*Medical Brief.*

The Digestibility of Starch is greatly increased by prolonged cooking, says Dr. N. Butiagin, and since the ptyalin value of saliva is diminished by disease, starchy foods for invalids should be well boiled, in his opinion, three or four times as long as ordinarily.

Death of Mr. McGill.—It is with sincere regret that we learn of the death of Mr. A. F. McGill, the eminent surgeon of Leeds, England.

Mr. McGill was the first to establish in England the operation of supra-pubic prostatectomy, originated by Dr. Belfield, of Chicago.

A Hypnotizer Refused a License.—Dr. J. W. Prendergast, Health Officer, of Cincinnati, has influenced the authorities to refuse a license to a lecturer on hypnotism, and the lectures have been stopped. Dr. Prendergast, has taken the ground that hypnotism is injurious when applied indiscriminately, as it affects the mental health of the objects. Upon recommendation of Health Officer Prendergast, the City Council of Cincinnati passed an ordinance making it a misdemeanor to give hypnotic exhibitions.

Reported Death of Prof. Weigert.—We are glad to be able to announce that the death of Prof. Karl Weigert, of Frankfurt, which was reported in various English and Continental journals, is incorrect. He has been suffering very severely from septicæmia, the result of a post-mortem wound, but is now recovering.

Exalgin in Neuralgia.—Wonderful results have been attributed to exalgin in 2 to 7 grain doses for facial neuralgia, lightning pains of tabes dorsalis and in migraine. Ten to fifteen grain doses may cause vertigo, but not cyanosis. Many think it equal to morphia in controlling pain without the unpleasant effects.

The Medical Society of the County of New York has awarded a prize to Dr. David Cerna, of the University of Pennsylvania, amounting to $100, for his essay upon the "Physiological Action of Hydrastis Canadensis." The essay is said to be a very exhaustive and cureful study of the subject of which it treats.

A Fat Men's Congress was recently held at Berlin, and the following data was collected: Herr Berg, a brewer, from Sraulau, was the largest man, weighing 399 pounds, or upward of 28 stone; Ferdinand Colin, from Angemunde, another delegate, weighing 365 pounds; and Herr Hubert, a saloon keeper of Berlin, weighing 364 pounds.

The Donation to Koch.—It is said by several Berlin journals that when Koch was informed of the intention of the German Government to donate him the large sum of money which he has since received, he declined the proposed gift. Most physicians find it a good rule never to refuse pay for honest services, regardless of when and where it is tendered.

Medical Prizes in Paris.—The Academie de Medecine, of Paris, has twenty-eight annual prizes to award, varying in amount from $50 to $5,000. In the past year one hundred and seven essays were received in competition, or an average of about four for each prize. In eighteen cases the prizes were awarded; in ten, no essay of sufficient merit was received.

Koch's Lymph in St. Louis.—Dr. Max C. Starkloff, of the South Side, has received from the German Government a supply of paratoloid, obtained through the efforts of his father, Dr. Hugo M. Starkloff, American Consul at Bremen. The experiments will be conducted at the Missouri Pacific Hospital under the direction of Drs. W. B. Outten and Starkloff.

An Inoculation Cure for Glanders.—It is reported that Dr. Helmann, one of the leading officers of the new medical institute founded by the Prince of Edin-

burg, in St. Petersburg, has discovered a successful means for the cure of glanders. The discovery is on the same line as Koch's, and is said to consist in bacterial inoculation. If true, it is a discovery of great importance in veterinary practice, and is also of great consequence from the fact that the disease is occasionally found in the human subject.

American Electro-Therapeutic Association.—A convention of American physicians interested in electro-therapeutics was called to meet at the Academy of Medicine, No. 16 West 43d street, New York, on January 22, 1891, at 11 a. m., for the purpose of organizing an American Electro-therapeutic Association.

Resorcin in Diphtheria.—A good antiseptic for operations in diphtheria is a 10% solution of resorcin in glycerine. Several severe cases have been treated in this way in Germany. The solution should be applied by means of a brush every hour during the day and every two hours during the night; and the air of the room should be kept saturated by means of a spray apparatus containing a 5% solution of resorcin.

Tuberculosis in England.—There is an instructive lesson in the English mortality returns from tuberculosis for the last forty years. In the ten years from 1851 to 1860, the number of deaths from tuberculosis in persons from 15 to 45 years of age amounted to 3,943 in every million; from 1861 to 1870 it had fallen to 3,711; from 1871 to 1880 it was 3,194; and from 1881 to 1887 it did not exceed 2,666. The decreased rate is more marked in the female than in the male sex.

The Treatment of Chancroidal Bubo.—Cordier, in *Lyon Medicale*, (*Deutsch. Med. Zeit.*) recommends that buboes following chancroid be punctured as soon as possible, whether pus be present or not. Through this puncture a 2% solution of silver nitrate is injected into the inflamed tissues. By this means he claims that he attains a speedy and good recovery, and what is of more importance, avoids the formation of an unsightly scar.

Transactions of the St. Louis Medical Society.—By a unanimous vote of the Society taken at its meeting on Saturday, January 17, it was determined to publish the proceedings weekly instead of monthly—the process that has b en in vogue during the past year. It was also voted to employ an editor to revise, condense, and edit the transactions for their publication in proper and readable shape.

By this arrangement we shall be enabled to furnish our readers an interesting weekly record of the Society's proceedings as they are enacted.

The Treatment of Bromism.—According to a communication made by Feri, to the Paris Societe de Biologie, (*Allg. Med. Cent. Zeit.*) the evil effects of large doses of the bromides, more especially the skin affections, may be avoided and overcome by the administration of naphthol and salicylate of bismuth, by which means intestinal antisepsis is attained. It is said that not only do the symptoms of bromism recede after this treament, but that one is thereby enabled also to continue the use of the bromine preparations and to increase the quantity of the same, without any fear of a return of the symptoms.

Trials of the American Student.—The Yankee medical student has not very much to be thankful for. First of all, the medical "diploma mills" turn out their thousands of ill-trained and indifferently educated youths to take part in the professional struggle for existence, and then no kind legislature has interfered for the purposes of restricting the practice of medicine to native graduates. His woes, therefore, are tangible, but now Mr. McKinley has got passed a tariff, in virtue of which the tax on microscopes has been raised to 60%, so than an instrument which cost $90 in Germany will, wholesale, cost $150 in the States. This will hardly have for effect to stimulate microscopical work, and the cost will, of course, increase *pari passu* with the minuteness of the object to be magnified, seeing that the higher the power the greater the initial cost, and, therefore, the more crushing the protective duty.—*Hosp. Gaz.*

The latter hardship cannot be so great as it seems, for it is our impression that excellent microscopes and objective can be made right here in America, without going to Germany.

LITERARY NOTES.

The Standard Dictionary of the English Language.

Advance pages of this book in preparation for publication by Funk & Wagnalls, 18 Astor Place, New York, have been received, and indicate that this is to be one of the most important and valuable works published for some time. In many particulars it departs from time-honored customs of the older dictionaries, presenting innovations that, in our opinion, will prove as advantageous as they are novel. These may be noticed in the following plan on which the work is based:

1. The "locating" of the verifying quotations; that is, giving in each instance not only the name of the author, but also the name of the book and the number of the page where the quotation can be found; to thus "locate" 50,000 quotations is of itself a herculean task.

2. The use, in the pronunciation of words, of the Scientific Alphabet, adopted by the American Philological Association.

3. The placing of the etymology after the definition.

4. The placing of the most important current definition first, and the obsolescent and obsolete meanings

last, that is, the substitution of the order of usage for the Historic Order usually followed in dictionaries.

5. In the case of disputed pronunciation the giving of the pronunciations preferred by other dictionaries, as well as the pronunciations which the editors of this work prefer.

6. The giving of 50,000 vocabulary words more than are to be found in any other single volume dictionary in England or America. Great care is being taken in the admission of new words; no new word is admitted to a vocabulary place, unless it has been passed upon by the able men in charge of this department, namely, Julius H. Seelye of Amherst College, Edward S. Sheldon of Harvard University, Edward Everett Hale, Charles A. Dana, and Howard Crosby.

7. The indication by the use of capital and small initial letters, as to whether words in the vocabulary are to be written as proper names or common names, etc.

The illustrations promise to be copious and well executed. The list of editors of the various departments is made up of the most prominent teachers and literateurs of our country.

"Knowledge:" A Weekly Magazine.

Knowledge is a unique little magizine which ought to have great popularity among all owners of Cyclopedias. It undertakes to supply the information which one ordinarily seeks in his Cyclopedia and fails to find there, because it is not "up to date"—it was published "last year," or, more probably, several years ago. "The world moves," and the most important questions that want answering are questions of to-day, not of yesterday; Knowledge answers, during the year, several thou sand such questions. It is published weekly, for the amazingly small sum of 50 cents a year; specimen copy free. John B. Alden, Publisher, 393 Pearl Street, New York.

Announcement.—E. B. Treat, Publisher, N. Y., has in press for early publication the ninth yearly issue of the "International Medical Annual."

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SOCIETY PROCEEDINGS.

GYNECOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE, MD.

December meeting, Vice-President Chas. H. Riley, M.D., in the chair.

Dr. Wm. E. Moseley related the following case:

Mrs. Maggie G., a light colored woman, æt. about 30 years, twice married, had had two children by her first husband. Had suffered much during the past 12 years from dysmenorrhœa; had been unable to do ordinary work.

Examination showed the uterus to be retroflexed and firmly bound down, but the character of the adhesions could not be definitely made out. There was an irregular-shaped, elastic mass in the position of either tube, diagnosticated as cystic ovaries, together with chronically-inflamed tubes. All the pelvic tissues were very sensitive to pressure. There was a deep, double laceration of the cervix, and a lacerated perineum with very lax vaginal wall but only slight rectocele.

When the abdomen was opened the mass on either side of the pelvis was found to be composed of a cystic ovary and the corresponding tube firmly matted together by old organized adhesions, each mass being firmly bound down to the pelvic wall by numerous strong and many more recent adhesions. There were also adhesions to the omentum. The left ovary ruptured before it could be removed. The mass in the right side appeared to be a large hematosalpinx, but examination proved it to be an ovarian cyst into which blood had entered from a ruptured Graafian follicle. The adhesions behind the uterus were very broad, strong bands and were pulled off the uterine walls. All possible care was used to secure the patient against hæmorrhage, and the abdomen was douched out with hot, boiled water until the return flow was practically colorless. A glass, perforated drainage-tube was introduced to the bottom of the cul-de sac, and the incision closed about it. The extreme difficulty of separating the adhesions and the douching prolonged the operation to about one and a half hours.

Although stimulants and artificial heat were pushed no reaction could be obtained, the temperature never reaching 95°, and the patient died about six hours after the operation, apparently from shock. At no time was there any discharge of blood, or even bloody fluid, from the drainage-tube. Dr. N. G. Keirle, however, kindly examined the pelvic cavity post-mortem and reported that death was due to hæmorrhage, the exact source of which could not be made out. Dr. J. Whitridge Wil-

liams kindly furnished the pathological report, which will be given below.

Dr. Thomas Opie exhibited a placenta that he had gotten a few hours before the meeting from a case of placenta previa.

The patient was æt. 35 years, and had borne one child previously. When he saw her first she was blanched and exsanguine. The blood flow began three days before with a loss of a quart, and continued with more or less rapidity up to the time of operation. Her confinement was not expected for two weeks. When first seen by him there were some rhythmical pains and some dilatation. The cervix was dilated with the fingers and cone of the hand; the placenta was detached with a sweep of the fore-finger around the cervix, the bag of waters was artificially ruptured and traction-rod forceps applied. The child was delivered in 15 minutes without further loss of blood, the placenta coming away simultaneously with the birth of the child. Though the position was occiput posterior, there was no laceration of the perineum and the child was unscathed. Both mother and child were left doing well.

Dr. Opie also exhibited a specimen of an ovarian tumor which he had recently removed. The tumor had developed into the epigastric region and the abdomen was about as large as it would have been at the full term of pregnancy. It took 2 hours to break up the adhesions, which were very dense between the tumor and the intestines, and between the tumor and the omentum. The second tumor was taken from the pelvis. It was ovoidal in form, about 7 inches in length, by 5 inches high, and 4 inches thick. It was removed entire and upon section it proved to be a dermoid growth. There was no history of peritonitis to account for the extensive adhesions. The patient had never had a day's discomfort, other than from the size of the cyst. She did not know until 4 months ago that she had a tumor. The material in the large cyst was colloid. Notwithstanding the extensive adhesions, the length of time consumed in breaking them up, and the injury resulting from the operation, the patient has made a good recovery, this being the seventeenth day after the operation.

Dr. Howard A. Kelly.—The term colloid is often used in two senses. An incorrect use, describing the yellowish, more or less opalescent, thick, viscid material often found in ovarian cysts; it is employed in such cases as more or less synonymous with gluey. The other use of the term is to describe a rare condition, in which the contents of the cyst are more like calf's-foot jelly and have a vitreous fracture; they are with great difficulty removed, clinging to everything. This latter is true colloid, and when found such tumors are of a suspiciously malignant character. We should limit the use of the word to the latter condition.

I wish to refer to two minor matters of interest suggested by this specimen of placenta previa. The position which the placenta has occupied in the uterus can accurately be determined by the position of the opening in the membranes made by the passage of the child, inasmuch as the fundus uteri must of necessity be just opposite to this perforation. We can, therefore, by reconstructing the membrane see just in what part of the uterus the placenta lay. In one of my placenta previa cases there was no hole at all in the membrane, as I had extracted the dead child through a perforation in the placenta. We can do still more than this in the way of a diagnosis with the membranes. By allowing them to be expelled, untouched, into the bed and carefully observing their exact position, we can tell as well on which side of the uterus the placenta was attached.

The second point is that we may have placenta previa hæmorrhage without being able to detect a placental margin, owing to a low attachment of part of the placenta, near the internal os, below the contraction ring but not over the hole of the cervical canal. The lower part of a placenta thus attached is separated by the opening up of the lower uterine segment.

Dr. L. E. Neale.—Although Dr. Kelly had alluded to a point of some interest, it is of far more practical importance to recognize placenta previa prior to its expulsion, and as far as he knew this could only be done with certainty by digital examination; partial placental separation and rupture of the membranes during labor in cases of placenta previa was outlined by Mariceau as early as 1668, but was fully described by Puzos, in 1759; he saw nothing in the history of the present case as related by Dr. Opie, that contradicted the method of Braxton Hicks, a method that up to the present time had given by far the best results, viz., $4\frac{1}{2}\%$ maternal mortality: If this method, when practicable, could be performed earlier than delivery by any other method, and was not difficult and gave the best results, why not have aplied it in the present case?

Dr. William Brinton asked why Dr. Opie objected to the tampon in cases of placenta previa; he thought no arbitrary law could be applied.

Dr. Opie said in closing the discussion, that results of operative procedure depended largely upon the skill and familiarity of the operator with the special operation resorted to; in the first case of placenta previa hehad attended, he had treated and lost both mother and child. With rapid dilatation and forceps he feels that he has command of the situation, and having resorted to that method repeatedly, has gained greater skill and does better work. While Dr. Neale might do better by some other method, he is fully satisfied that he does best himself with the forceps; he is opposed to the use of the tampon because it conceals what is going on; it is not best to wait for pains; he is in favor of rapid dilatation and delivery in placenta previa, in puerperal eclampsia and in abortion: to put in a tampon and go away is hazardous; the tampon is of very little help in hæmorrhage.

Dr. Kelly read a paper on

The Examination of the Normal Pelvic Viscera, describing various bimanual and trimanual methods of palpating the normal ovary.

Dr. Wm. P. Chunn.—When speaking of what should be found or can be found at an examination, it is necessary to consider the circumstances under which the examination is made. Office examinations are the most usual, and all the facilities are not usually at our command, and this circumstance should be specified and taken into account. Certain advantages in methods give certain advantages in results. Of course, where the woman has no ovaries, or where the ovaries are not in the pelvic cavity they can not be palpated.

Dr. Hunter Robb.—I thoroughly agree with Dr. Kelly that the normal ovary can always be palpated under an anæsthetic, and also that in a large number of patients the ovary can be outlined without anæsthesia. Four years ago Dr. Kelly taught me the method of examining the ovary by investigating the perineum, and I can testify to its utility. This lengthens out the examiner's finger and thus enables the practitioner who has a short finger to accomplish it with almost the same facility as a larger one. The corrugated tenaculum, devised by Dr. Kelly may be used to advantage with mulliparous patients to define the uterus and its appendages still further. No one, of course, would think of using it in inflammatory conditions of the pelvic cavity.

Dr. B. B. Browne said that he had listened with much pleasure to Dr. Kelly's paper, and congratulated him upon the admirable manner in which he had systematized these valuable methods of pelvic examination—methods which most of us had been using in our gynæcological practice for several years; he generally preferred the use of two fingers in the vagina, as he could thus make a more satisfactory examination of the tubes and ovaries than with one finger; in many cases a more accurate idea of the adhesions can be had by getting the finger above the ovary and fixing it between the finger and the spinal column; pulling down the uterus aids diagnosis very much.

Dr. Opie said that there were few objections to Dr. Kelly's paper, but it seemed that the elbow on the hip is incompatible with delicacy of touch; the law, as expressed by Martin, being—"The more lightly the parts are touched, the easier the goal is reached; and the less the force that is employed the more distinctly things are felt;" he thinks it a cruel sort of thing to drag an organ out of its position, and would like to know how much displacement can be made with the tenaculum without producing dangerous trouble, for example, cellulitis, metritis and injuries to the periuterine tissue; he had met a number of cases in which he had not been able to make out the ovaries. Dr. A. Martin says he can palpate normal tubes, but Dr. Opie has never been able to reach that degree of perfection.

Dr. Neale referred to the possibility of tracing out the uterus through the anterior vaginal wall as had been demonstrated to him by Dr. Kelly, at the Hopkins Hospital Clinic; he had no doubt that in a large majority of cases, the normal ovary could be displaced out of its normal position and palpated or touched with ease through the vaginal walls. He believed that a great deal of difficulty in an ordinary gynæcological examination was due to the fact of neglecting to empty the bladder or to employ the rectal touch.

Dr. H. P. C. Wilson said there were a large number of women in whom he was sure he could not palpate the ovaries, and he was doubtful if any one could do so. The uterus is often found fixed in the pelvis as in a mass of putty, and no definite outlines can be made out; in other cases the abdominal walls are from 2 to 4 inches thick with fat, and in such cases he had failed to find the ovaries.

Dr. Whitridge Williams said that he could certainly feel the ovaries in 4 cases out of 5, and that he had succeeded occasionally in finding the ureter.

Dr. Moseley.—The old teaching is that the ovaries cannot be palpated in their normal position. When an ovary can be found by an ordinary examination its location may fairly be considered as abnormal. If Dr. Kelly's idea, that all men who cannot make out normal ovaries should be thrown out of the specialty, should be enforced, a large number of experienced and thoroughly-informed specialists would be excluded from practice. It is practically impossible to examine every patient thoroughly enough to make out the normal ovaries in office examinations. In dispensary, and more especially in hospital practice, the case is very different.

Dr. Browne thinks that the cases in which the ovaries can not be felt are the abnormal cases; if the symptoms point to an examination of the ovaries they can be made out, but if necessary an anesthetic should be given.

Dr. Kelly, in closing the discussion, said that he examines every case coming to him, vulva to ovaries, making a special note of every important organ.

When the patient complains of persistent pelvic pain, the examination is never considered complete or the diagnosis sure, without a special note as to the condition of the ovaries. I have been asked about examining the ureters by palpation. They can be felt in almost all cases, being distinctly traced from the anterior part of the pelvis back to the side of the uterus. Pressing upon a diseased ureter causes a desire to pass water that irresistable, I prove that this structure is a ureter by catheterizing it. The catheter can be felt through the vaginal wall, outside the bladder, in the ureter, and the urine collected as it comes down from the kidney drop by drop. The Fallopian tube can often but not always be made out.

The amount of displacement of the uterus which can be made without injury is considerable. In normal cases it can easily, and without harm or pain be brought down to the vaginal outlet. When there is fixation, gentle traction can be made until pain is felt. In these cases I use traction with the corrugated tenaculum, and then pushing up the fundus with the finger practice massage, stretching the adhesions. I am sure that the downward traction to the vulva without pain never does any harm.

Dr. J. Whitridge Williams remarked upon the

pathological specimens submitted to him by Dr. Moseley, Dr. Wilson, and Dr. Opie:

The specimens submitted by Dr. Moseley are of considerable interest, and consist of the uterine appendages from both sides. The specimen from the left side consists of the Fallopian tube, ovary and part of the broad ligament. The tube was completely occluded at its fimbriated end but otherwise presenting nothing abnormal, except numerous small adhesions. It contained a very small amount of dirty yellow fluid, consisting of columnar ciliated epithelial cells and numerous disintegrated cells. The ovary was considerably torn and covered by very dense adhesions, while the broad ligament presented nothing of note. The specimen from the right side was an irregular mass of tissue about 5x 4x1½ cm., consisting of the tube and ovary, imbedded in dense adhesions. At first glance the mass appeared to be composed of two parts, a large solid anterior portion covered by dense adhesions, and posterior to it a cystic structure about 4x1½ cm. in size. This had a bluish color, thin wall and was intimately connected with the rest of the mass. Imbedded in adhesions a piece of the ampullar end of the tube was found which could be traced for about 4 cm. and then lost itself in the mass, and appeared to have no connection with the above-mentioned cystic portion. The main portion of the mass on section was shown to be composed of ovariau tissue, which was covered and completely hidden from view by very dense adhesions. It contained two tolerably fresh corpora lutea, about 1½ cm. in diameter. The largest of these corpora lutea communicated by a small opening with the cystic portion above mentioned, which contained a thin, reddish watery fluid, containing blood cells. On cutting open this cystic portion its walls were found perfectly smooth, with several smaller cysts projecting into it. These varied in size up to 2c. in diameter, and were filled with a clear, watery fluid and arose directly from the ovarious tissue. On examining the scrapings from the walls of these cysts, I found that they were lined by a layer of almost flat cutoidal cells which were distinctly ciliated. These cysts could not have originated in the tube, as was readily demonstrated by their arrangement in relation to the larger cyst, and by the living epithelum which was totally different from that of the tube. Their smooth interior precluded the idea of a ciliated papillary cystoma; and the only probable thing for them to be were dropsical Græfian follicles which had been prevented from rupturing by the dense adhesions covering them, and so attained their large size. The fact that they were lined by ciliated epithelium is not at all opposed to this supposition; for cilia have previously been found in the dropsical Græfian follicle, as was shown by Von Velits, of Budapest, about a year ago and as I found altogether independently of him, last spring. But as yet I have not made a sufficient number of observations to assent that all dropsical follicles are lined by ciliated epithelium. The blood in the large cyst, in all probability, came from the corpus luteum with which it was connected. The adhesions about the ovary were particularly dense and resisting. The diagnosis from the specimen is pelvic peritonitis, with adhesions binding down the adnexa on both sides, particuliarly the right side, with several very large dropsical Græfian follicles.

The specimen submitted to me by Dr. H. P. C. Wilson was a small myoma, about 3 cm. in diameter, and bore on one surface a piece of vaginal mucous membrane the size of a two-cent piece. The tumor was submitted to me to decide whether its origin was from the anterior fornix or from the uterus itself. Sections made through the tumor and the vaginal mucous membrane readily showed it to be a myoma which was separated from the submucous tissue and epithelium by numerous bands of non-striated muscular tissue. From the presence of muscular fiber between the tumor and epithelium, I think we are justified in concluding that it was not of vaginal origin. Were it of vaginal origin it should arise from the submucous tissue and be immediately adjacent to the epithelial tissues. Force is lent to this conclusion by the fact that vaginal fibroids are very rare indeed, and many of the reported cases, especially fibroids from the anterior fornix, had their origin in the anterior wall of the uterus instead of the vagina.

The specimen submitted by Dr. Opie was a greatly hypertrophied posterior lip of the cervix which measured 5 cm. in length, and 2 cm. at its broadest part. Microscopically it was found to consist of almost normal cervical tissue, with only a very slight increase of the connective tissue. Except at its cut surface the entire mass was covered with the usual stratified epithelium.

Generally speaking, we may distinguish two forms of hypertrophy of the portio-vaginalis—follicular and diffuse or simple hypertrophy. The first form is due to an increase in number and size of the cervical glands, with frequent retention of their contents, and is quite frequent but never attains a very great size and is readily distinguished by its nodular appearance. The diffuse or simple form of hypertrophy is far more important. In this there is a general increase in all the elements that compose the cervix, though there may be a slight increase in the amount of connective tissue, as there was in this case.

Dr. Howard A. Kelly read a paper on the

Palpation of the Normal Uterine Appendages.

He stated that the normal uterine appendages could always be palpated. There are two avenues of approach, by the vagina and by the rectum, and three ways of utilizing these avenues. First, with one hand; second, with two hands employed bimanually, either by vagina or rectum, and third, the trimanual method, by vagina and by rectum.

First, the examination with one hand is unsatisfactory and the ovary cannot even be felt unless abnormally displaced downward into the recto-uterine pouch. Second, the success of the bimanual examination de-

pends upon the downward pressure with the external hand, displacing the abnominal walls in the direction of the ovary to be palpated, and thus affording a resistant plane against which the ovary can be felt by the internal hand. The internal hand must be used to invaginate the perineum, which is thus displaced upward into the pelvis. This invagination gives the examining finger, even though it be a short one, the necessary length. One, often even two inches, are thus gained to the palpating finger. Care must be taken in making the pressure necesssry to produce this invagination, not to stiffen all the muscles of the forearm, thus impairing the tactile sense.

The rectum is, of all others, the best avenue for approaching the structure lateral to the uterus, affording as it does a wide open channel throughout the whole length of the pelvis.

Where the structures cannot be reached at once through the rectum, they are brought within easy touch by bringing the uterus and ovaries into an artificial retroposed anteflexion, the mechanism of which was carefully described, by diagrams.

Dr. Kelly had, in this way, palpated fibroid tumors on the posterior surface of the uterus near the fundus, not as large as a pea.

Third, the trimanual examination is conducted either by the vagina or by the rectum and vagina, assisted with the hand above. The peculiarity of this method is an artificial descensus uteri. The uterus is grasped with a pair of bullet forceps and drawn downward until the cervix is seen at the vaginal outlet, and while an assistant holds it in this position, the gynæcologist uses his hands bimanually. To obviate the employment of an assistant, Dr. Kelly has invented an instrument, which he calls the corrugated tenaculum, flattened and roughened so that it can be readily held between the last phalanges of the third and fourth fingers and the ball of the thumb, while the index finger of the same hand, assisted by the abdominal hand above, is engaged in making a vaginal or rectal examination.

By one or the other of these methods, the uterus, broad ligaments and ovaries and tubes are within reach of a most thorough and searching examination, revealing at once the smallest abnormalities.

WILLIAM S. GARDNER, M.D., Secretary.

SELECTIONS.

THE KOCH LIQUID.

Shortly before the time of our going to press, the purport of Prof. Koch's latest communication, published in Berlin on the 15th inst., reaches New York. It deals largely with the results of clinical observation, which Koch holds to have been thus far confirmatory of his statements made in November. Nevertheless he admits—perhaps in consequence of the reports of such observations as Virchow's—that under some circumstances the use of his remedy actually promotes the tuberculous process, and is, therefore, injurious. He is entitled to great credit for this frankness.

But what our readers will regard as the most interesting part of Prof. Koch's communication is that in which he gives some idea of the nature of the liquid. It seems that it consists of certain unknown substances extracted by means of a 40 or 50% dilution of glycerine from a pure culture of the tubercle bacillus. He declares that the precise nature of the active principle is at present unknown to him, although some of its physical properties have been ascertained, such, for example, as that it is not soluble in alcohol, but precipitable by that substance, although not in a pure state. The efficient principle seems to him to be an albuminoid derivative, but not to belong to the so-called toxalbumins, from which it differs by withstanding high temperatures and by passing readily through the membrane of a dialyser. It is estimated to constitute less than 1% of the solution, and this leads Prof. Koch to remark upon its extraordinary potency as a poisonous or therapeutic agent.

It seems that Koch was guided to his discovery by observing the action of tubercle bacilli, living or dead, on tuberculous and non-tuberculous guinea-pigs. In the healthy animal an inoculation of the pure cultivation gives rise, after a period of incubation varying from 10 to 14 days, to a hard nodule, which soon breaks down into an ulcer and persists until the animal dies. When, however, a guinea-pig already tuberculous is thus inoculated, no nodule forms, but the superficial tissue at the place of inoculation becomes necrosed and falls off. Injections of a quite dilute glycerin infusion of a pure cultivation cause the animal's condition to improve. Evidently, having got thus far in his observations, Koch was unable to overlook the obvious suggestion that even dead bacilli, or at least a solution of some of their constituents or products, contained something that might be made available as a drug and produce the same effect. It was then, therefore, a comparatively simple matter to arrive at the production of the curative liquid now in use. We see no reason why it should not now be prepared in any well-equipped bacteriological laboratory, and thus the restriction heretofore put upon its general employment be ended. In the absence of a more detailed account of its preparation than Professor Koch gives, it may, we think, be assumed that any person who would consider himself conversant enough with bateriological methods to attempt the work of producing such a liquid would not, even without a hint as to the steps in the process necessary, have been in the least likely to produce an agent more dangerous than the Koch liquid itself. But Professor Koch feared such an occurrence when he first promulgated his method of treating tuberculosis; and his judgment was deferred to by the medical profession. He now brings up in support of his previous secrecy the argument that the less the clinicians knew about the nature of the liquid the more unbiased would they be in their observations of its action. This strikes us as odd, but there may be

men so constituted. At all events, we are glad that the nature of the remedy has now been made known. The question of its curative action is still far from being settled.—*N. Y. Med. Jour.*, Jan. 17, 1891.

KOCH'S TREATMENT OF TUBERCULOSIS: A SUMMARY OF RESULTS.

On December 21, Professor Cornil brought the series of lectures which he has been delivering on Koch's treatment at the Hopital Laennec to a close. He summed up the results which he had so far obtained by the new method, and, reviewing the different forms of tuberculosis he pointed out those in which the treatment seemed to be indicated, and those in which it was contraindicated (*Semaine Medicale*, December 24, 1890). Dealing first with tuberculosis of the skin, he said the effect of the injections was to produce an abundant serous exudation on the surface of the lesions; this serosity then solidified and formed crusts, which were sometimes very thick. Between these crusts and the superficial part of the underlying tissues could be seen a layer of white corpuscles, brought thither by diapedesis, and among these corpuscles there were numerous tubercle bacilli. M. Cornil, therefore, thinks that the congestion induced by the remedy, instead of destroying the bacilli (which, on the contrary, seem to be more numerous than before), drives them outside, together with the discharge with it sets up. *A priori*, therefore, it seems clear that there will only be improvement in proportion to the extent to which the products of increased secretion can be eliminated. In articular tuberculosis, where there is no fistula, the joint after the injections becomes tense and painful, the tension being so great that the slightest jolt causes pain. The swelling is produced anew after each injection, and after the remedy has been used several times there seems to be an aggravation of symptoms rather than an improvement. The results in these cases, therefore, are, according to M. Cornil, "more than problematical." When there are fistulæ which allow the serosity to escape, the results may be different. In tuberculosis of the epi didymis the results are "not very encouraging." M. Cornil cites the case of a patient with tuberculous epididymities on the left side, in whom, under the treat ment, the diseased mass increased in size on the left side, whilst a nodule became developed on the right side, which had previously been perfectly healthy. In tuberculosis of the larynx "beneficial results may perhaps be obtained," but extreme caution is required so that local swelling may not endanger the patient's life. In this situation, however, surgical interference may be successful in facilitating the elimination of the swollen and softened tissues. With regard to the various forms of pulmonary tuberculosis, we must now, in M. Cornil's opinion, "abandon the greater part of the hopes which were at first entertained." Here he thinks the indica tions for the treatment are extremely limited; "in the majority of cases it may be very dangerous." It is useless to think of employing it in acute, galloping, or pneumonic phthisis. In advanced phthisis, where there are large cavities in the lungs, the injections so far from being useful, are positively hurtful. Even in incipient phthisis M. Cornil is very doubtful as to their effect. He mentions the case of a boy of 14 whose cough dated from only about three weeks before he came under treatment. The disease was clearly tuberculosis, and Koch's remedy was tried. The injections caused the development of an area of intense congestion at the apex, which went on almost to hepatization; the congestion disappeared after a time, but always returned worse than before after each injection, so that the treatment had to be abandoned. In some cases the injections caused attacks of hæmoptysis; in others abundant pleuritic effusion. In certain cases of chronic phthisis, in which the disease is quiescent, or nearly so, the treatment would, M. Cornil thinks, be not unlikely to kindle it into fresh activity. In a limited class of cases in which there are cavities communicating freely with the bronchial tubes, with little or no fever and not much impairment of strength, the remedy may do good, if it does not cause too violent a reaction. Two patients of this kind, under M. Cornil's care, gained weight and "seemed to derive real benefit from the treatment."—*Br. Med. Jour.*

KOCH'S TREATMENT IN PHTHISIS: FATAL RESULT.

Koranyi reports (*Pest. med.-chir. Presse*, No. 49, 1890) the results of Koch's treatment, which was tried by him in the First University Clinic of Buda-Pesth in ten cases of phthisis and two of lupus. One especially noteworthy case was that of a woman suffering from advanced phthisis complicated with diabetes mellitus. She had been in the hospital since the beginning of July, and the urine contained on the average from 120 to 250 grammes of sugar daily. At the time of her admission there had been commencing infiltration of the left apex; the excretion of sugar was not appreciably diminished either by Carlsbad water, opium, arsenic, or the strictest dieting. During her stay in the hospital there had been no pyrexia, and no bacilli had been found in the sputum in spite of the fact that large cavities had formed in the lungs. Since the beginning of November the patient had lost four kilogrammes in weight. On November 25, when the urine contained 4.5% of sugar, an injection of 1 milligramme of Koch's fluid was given; no reaction took place. On November 27, 2 milligrammes were injected, whereupon the temperature rose to 38.6°C., expectoration increased in amount, and on the following day for the first time bacilli were found in the sputum, the proportion of sugar falling at the same time suddenly to 0.4%. On November 29, 1 milligramme was injected; the highest temperature reached was 38.4°C.; there was 0.47% of sugar.

On November 30, 1 milligramme was again injected, but there was no reaction. Oh that day the sugar entirely disappeared. As, however, the patient was becoming weaker, and as there were signs of cardiac failure, no injection was given on December 1. On that day the woman took food with moderate appetite at midday, but in the afternoon the temperature arose to 37.9°C., and at 5 P.M. she died of syncope. At the post-mortem examination, which was made on the following day, the whole body was markedly exsanguine, but both lungs were extensively œdematous. In the upper lobe of the left lung there was a cavity as large as a man's fist, which was filled by "a reddish sanguineo-mucopurulent mass;" the lung tissue forming the wall of this cavity was covered with dull red, hæmorrhage, succulent granulations. There were also some smaller cavities which presented the same apperances. In several parts of the lung there were caseous nodules, varing in size from a pea to a nut, which could be seen dotted about like fine granules on the cut surface; they were soft and juicy, greyish-yellow in color, and greasy to the touch. These nodules were for the most part surrounded with a bright red zone of congestion. The strikingly moist, softened condition of the tuberculous foci, together with the hyperæmic zone surrounding them, showed, according to Koranyi, that a process analogous to that seen in the case of lupus nodules after the injection of Koch's fluid had in the present instance takes place in the lungs. In the Second Medical Clinic of the University of Buda-Pesth Koch's treatment was tried by Professor Ketli in seven patients, six of whom were certainly suffering from phthisis, whilst in the seventh the symptoms were very suspicious. The initial dose was 2 milligrammes, rising gradually to 1 centigramme; the largest dose given was 0.011 gramme. In only two patients was any reaction observed.—*Br. Med. Jour.*

THE BOARD OF TRUSTEES of the American Medical Association, at their recent Washington, D. C., meeting, adopted a resolution favoring Washington as the permanent home of the *Journal*, also one asking the various state and local societies in affiliation with the association to contribute funds to erect a permanent building for the meetings, as well as library and office of the Association.

AN EXCHANGE has suggested that a pencil or stick for application to chafed and irritated surfaces, or to skin especially susceptible to insect bites, etc., may be made by adding two per cent of cocaine to the ordinary cocoa butter pencils, giving immediate relief when rubbed over the spot.—*Col. and Clin. Record.*

CORRIGENDA.—In Dr. Kohl's article Jan. 10, 1891; Near the end of the article, should read; "Since the bile could *not* enter the duodenum;" farther on, should read "inflammatory," not inflating.

USEFUL FORMULÆ.

PHYTOLACCA DECANDRA IN MASTITIS.—Phytolacca decandra (poke-root) has long since been used by the country people for garget or caking of the udder in cows. In cases where there is caking of the breast and threatening suppuration, it may be prescribed with certainty; if fever be present, then one may combine it with aconitum or veratrum viride. The breast may be kept moist with the dilute tincture. If mammary abscess is threatened, then

℞ Tinct. phytolaccæ dec., - ½ ounce.
Aquæ, - - - - - 2 pint.
M. ft. sol. Sig.: To be used as a dressing.

The water should be warm; apply a pledget of cotton saturated; inject with a syringe, if necessary, or instead one may apply pledgets saturated with the following:

℞ Tinct. phytolaccæ dec., - - 1 part.
Glycerini, - - - - 10 "
Aquæ, - - - - - 10 "

In cases of soreness of the breasts in little children, and even where suppuration is present, phytolacca is the remedy; it should be applied as the dilute tincture—one part of the tincture to four or five of water. If the case be unusually severe, then one may administer the remedy to the "wet nurse," the child being influenced through the milk.—*Annals of Gynæcology.*

OIL OF TURPENTINE IN CONTINUED FEVERS OF MALARIAL ORIGIN.—Dr. McMullen states that oil of turpentine is a faithful regulator and restorer of excretory power besides possessing no mean antiseptic powers. The caution to be observed is not to give it in too large doses, but to obtain just that mild and equable degree of stimulation as shall be sufficient to overcome the torpidity of action which always, to some extent, obtains in this fever. If given to the degree of producing congestion and strangury all good results will be lost and great harm will inevitably ensue. The dose for an adult which he generally prescribes is from five to eight minims in emulsion, to be taken every four hours. Thus:

℞ Olei terebinthinæ pur., - - ʒiij.
Olei gaultheriæ, - - - gtt.xv.
Pulv. acaciæ, - - - - ℥ij.
Sacch. albi, - - - - - ʒij.
Aquæ aromat, - - q. s. ad. ℥iv.
M. Sig: Teaspoonful, diluted, every four hours.

This prescription will bear the addition of lactopeptine if the digestion require it, and of bismuth subnitrate should diarrhœa supervene.—*Ther. Analyst.*

PRESCRIPTION FOR THE PREVENTION OF DENTAL CARIES.—

℞ Tannic acid, - - - 75 grains.
Tincture of iodine, - 1 drachm.
Tincture of myrrh, - 1 "
Iodide of potassium, - 15 grains.
Rose water, - - - 6 ounces. M.

Make into a solution and use a teaspoonful in a wine-glassful of hot water as a mouth-wash.—*Med. News.*

ORIGINAL ARTICLES.

THE TREATMENT OF TUBERCULOSIS BY PROF. KOCH'S METHOD.

A SHORT REVIEW OF FOUR WEEKS AHPLICATION OF THE REMEDY.

BY KARL VON RUCK, B.S., M.D., ASHEVILLE, N. C.

It may not be uninteresting to the readers of the MEDICAL REVIEW to have a concise statement of what I have been able to observe in my own private institution, in the application of the remedy, after having as fully as possible studied the method in Germany.

I was much surprised to see the apparent routine method pursued in some of the Berlin Hospitals, and it seemed that there the sole object of administration of Koch's lymph was to get a reaction, and if possible an intense one.

This surprised me the more, as it was under the direction of men known heretofore for their conservative methods, and it is my belief that the curative power of Koch's method did not have a full chance or even half a chance there. Everything seemed to have been thrown overboard, except the lymph, and no thoughtful observer could help reflecting seriously as to what the outcome of this all would eventually be.

Discrimination in selection of cases did not appear to exist, except in so far as they were classified, but I have seen cases subjected to the treatment that I was convinced could not possibly live a week, and I have seen them die "lege artis" under Koch's lymph, just as soon and perhaps a little sooner than they would have done otherwise.

No one could expect in such cases to see reparative action or good results upon the post-mortem table, and Prof. Virchow could not do otherwise than call a halt to this absurd experimentation; and as he has explained since, he did not do so to oppose the remedy, but to point out its dangers to advanced cases, and bring about the conservatism which for the time was entirely lost in the enthusiasm of Berlin physicians.

Returning, I felt sufficiently convinced that in the earlier stages of the disease, and at a period when the physical condition of the patient was still such that he could have a reasonable degree of reaction without detriment, the remedy would be productive of good results. I have since selected a dozen or more of such patients and can now report what progress has been made in a month's time.

To give my patients every chance I have not thought best to carry the treatment out to the extent of producing reaction after reaction of severe degrees, but I apply it in connection with climatic and other means of treatment heretofore found beneficial, giving several days for recuperation after a reaction has been passed.

Although it may now be difficult to say how much of any evident improvement is due to the specific, and how much to other treatment and management, I think that I am unbiassed enough to judge these cases, with what has been my experience heretofore, and in comparison with the improvement of other and similar cases, which are under my care in my house, and are not pursuing the new method.

My cases comprise the following:

Two, early stage; with no destructive processes or complications; disease confined to one apex and non-febrile.

Such cases have always shown general improvement, and as much as I now find to have occurred under the specific medication. There is, however, this difference in the local condition, that in both patients the resonance and respiratory sounds are so much improved that I am obliged to admit that I could not have expected to bring about such changes in so short a time. There is also a marked change in the expectoration to a purely mucous form, and the bacilli now frequently fail altogether of demonstration.

Five cases more advanced, circumscribed destructive processes having preceeded; both lungs involved, with complicating tubercular laryngitis; slight evening fever. Although these cases have also improved physically, I should have been disappointed if a corresponding improvement had not occurred under my previous course of management, in the time they have persued the Koch method.

In two cases the resonance and respiratory sounds show marked improvement; in the remaining three only slight and somewhat doubtful changes for the better. The expectoration, at first increased after the injections, is now notably diminishing and also losing its purulent character, having become gelatinous and mucous.

The notable improvement is, however, in the larynx; there changes for the better in reduction of the tubercular swelling, disappearance of irritation and painful swallowing are well marked, and I know very well, indeed, that I have never before seen such results either from climatic or local treatment, or both combined.

Two other cases are lupus vulgaris of long duration and severe in character. In both reparative processes are unmistakable and have been since after the first week's treatment. Four other pulmonary cases, in the earlier stage, have been under the method too short a time to speak positively of improvement. All I can say is that they seem to bear the reaction well, and nothing unfavorable has thus far occurred.

On the whole, I am gratified with my results, and am gaining in the conviction that we have made a most valuable addition to our resources for the successful treatment of tuberculosis; but I feel equally convinced that we are far from the position which would justify us in relinquishing even the least of our previous means and resources, which experience has shown us to be more or less an aid in the treatment of such affections.

THE USE OF LARGE DOSES OF VERATRUM VIRIDE IN PUERPERAL CONVULSIONS.

BY C. M. WITMER, M.D., MARBLE HILL, MO.

Not long ago, in a conversation with Dr. Grinstead, I recounted to him my treatment of a case of puerperal convulsions, in which I had resorted to the use of large doses of veratrum viride with beneficial results. The doctor appeared somewhat surprised at the heroic doses of the remedy I had used, and suggested that I report the case. After some hesitation I concluded to do so, and have embodied the report of that case with several others from the practice of my esteemed friend, Dr. I. F. Sweeney, of Milton, Ind., in this paper.

The use of veratrum viride in puerperal convulsions is not one of recent origin, but its use hypodermically, I think, is. The first account I find of its use at all in this disease, is in the *Am. Jour. of Obstetrics* for 1871, from which article I will have occasion to quote. This was nearly twenty years ago, but in the onward march of medical science many things of utility and importance are overlooked or forgotten, and less useful methods of treatment adopted because they are new. Besides, in this instance, the great aid rendered by the use of the hypodermic syringe makes the use of a remedy much more certain and efficacious in its effects.

Dr. Bartholow, in his Materia Medica, classes veratrum viride among the motor depressants. He gives the dose at from two to five drops, and says the excitement of acute mania, of maniacal delirium and other forms of mental disorders in which a condition of cerebral hyperæmia may be supposed to exist, is successfully combated by veratrum viride. He says that a Dr. Sullivan, of California, informs him that it is useful in one-half drachm doses of the fluid extract every fifteen minutes, in puerperal convulsions.

In obstetrical works at my disposal I find no mention of the use of this drug for puerperal convulsions.

With this digression, I will proceed to relate some of the cases in which it was used in the practice of Dr. Sweeney, Dr. Fearn and myself.

CASE I.—Mrs. S. Third confinement. Labor began about 6 o'clock, A.M., progressed favorably until its termination about 2 o'clock, P.M. The child was alive and healthy. The mother did well until 3:30, P.M., when she was taken with a violent pain in the stomach, which lasted for fifteen or twenty minutes, and then a very severe pain in the head, followed immediately by a convulsion. I made an effort to get her under the influence of chloroform, and, as soon as the spasm was off, I gave her opium and bromide of potassium.

Dr. Joel Pennington was called in consultation. Before his arrival she had the second convulsion. On his arrival the treatment was continued, but without beneficial results, for, in less than an hour, the third, and, in like manner, the fourth and fifth convulsions occurred, at which time Dr. S. S. Boyd was called. Before his arrival she had had eight convulsions. This in the face of all the remedies at our command. On the arrival of Dr. Boyd, a hasty consultation was held, during which Mrs. S. had her ninth convulsion. Dr. Boyd had nothing to suggest other than what had been done. The patient by this time was entirely unconscious between the fits, and had been for some time. Dr. Boyd asked me if I had anything new on the subject. I thought not, but told him that possibly there might be something in the last number of the *Am. Jour. of Obstet.* On searching the journal we found an article written by Dr. Herbert Fearn, of New York, on the use of large doses of veratrum viride in the treatment of puerperal convulsions. As all other remedies had failed, and our patient was rapidly sinking, we placed her on twenty drop doses of veratrum viride (Norwood's tincture) every fifteen minutes, until the pulse was softened and reduced from 160 to 50 per minute. She vomited some, and had but two more fits—eleven in all. She remained unconscious for five hours. She made a good recovery and was up in twelve days after her confinement.

CASE II.—October 5, I was called by her attending physician at 3 o'clock, A.M., to a Mrs. D. She had had one convulsion before my arrival and was at the time unconscious and breathing stertorously. Croton oil had been administered and had operated freely. She had also taken fifteen drops of the tincture of veratrum veride, and was, at the time, partially under the influence of chloroform. It had been thought necessary to deliver with the forceps, but labor having started up with renewed vigor, we waited, and nature accomplished delivery. The child was living. After delivery, and while we were both in an adjoining room, she was taken with a most violent convulsion. Chloroform was administered, but seemed to have no effect. Fifteen drops of tincture of veratrum was administered, but she had two more convulsions in rapid succession, without a return of consciousness; and, as the third came on, I urged that a teaspoonful should be given at once. This was strongly objected to by the physician in attendance, on the ground of there being danger of producing too much prostration, inasmuch as fifteen grains had been given so recently.

I called attention to the character of the pulse. It was only 62, so full and hard as to make one feel that apoplexy was rapidly approaching. It was extremely suggestive of the lancet. I insisted that the veratrum would do no harm except to make her vomit, and that we could attend to that much better than cerebral hæmorrhage.

I gave her one teaspoonful, and in two or three minutes I gave her another teaspoonful, and then in fifteen minutes I gave her half a teaspoonful, which was followed with a quarter of a teaspoonful with the same interval, twice. She vomited very freely but only once. The interval was then extended to one hour, and gradually the quantity reduced, but in ten hours she took five drams. Small doses were continued through the

next day. After giving the second teaspoonful the pulse began to come down gradually, both in force and frequency, till it became soft and as low as 48. The convulsions ceased, never to return, and she became conscious. The pulse was not allowed to rise above 44, nor to get hard the balance of the day.

Before delivery she had used six ounces of chloroform, and after delivery two ounces. She was a very thick-necked, muscular woman with her head almost down on her shoulders. I never saw a case more suggestive of severe apoplexy and the necessity for the lancet, except two cases I had seen about eight years previously, both of which died. One was bled freely and the other treated with chloroform and croton oil. In the present case either immediate relief must have been procured, or death would undoubtedly have ensued.

To my consternation, on visiting the house on the fourth day after delivery, I found the patient washing baby clothes.

Case III.—I was called to see Mrs. Guard about 4 A. M., February 25, in her first labor. She was a very delicate woman of nervous temperament. Labor progressed favorably. About noon she complained of a severe pain in her head, and the next instant was in a violent convulsion. I gave her thirty drops of Norwood's tincture of veratrum viride hypodermically, which reduced the pulse from 150 to 50 in fifteen minutes. I kept her under the influence of the medicine until the termination of labor, which was accomplished by the use of the forceps. She had no further trouble and made a rapid convalescence.

Case IV.—I was called at 4 A. M. to see Mrs. J., October 3. She was in labor with her first child. Æt. 39 years, of delicate form, nervous temperament. The only evidence of labor was the escape of the liquor amnii. No uterine pains. Pulse 110. The patient was restless and uneasy. Some frontal headache. The os was rigid and unyielding. I thought she had gone to full time of gestation. Gave her bromide of potassium in fifteen grain doses, with Dover's powders once in two hours until she was apparently comfortable. I remained until 11 o'clock A. M. Seeing no evidence of labor, and my patient being easy, I went home, with the request to be called should labor set in. At noon I was called in haste and arrived in a few minutes at her bedside. She had not yet returned to consciousness from a severe convulsion which had occurred during my absence. I immediately gave her thirty drops of veratrum viride, but in less than ten minutes she was in another spasm. Her pulse was 150. I then bled her to the amount of ℥ eenou nces, and while the blood was flowing I gave her hypodermically thirty minims more of veratrum viride, and sent for Dr. Rutlidge who arrived in about an hour. By that time the patient had returned to consciousness. The pulse was reduced from 150 to 48 per minute. The physiological effects of the veratrum were indicated by her having vomited freely. The os was still rigid and there were no uterine pains. She was kept under the influence of the veratrum by the mouth, keeping the number of pulsations below 60 per minute. This treatment was continued until 3:30 A. M. of the 4th, when she was placed under the influence of chloroform. The forceps were applied and at 4 A. M. she was delivered of a healthy female child. The mother made a good recovery and was about in fourteen days.

Case V.—I was called to Mrs J. Baker at Glen Allen, July 8, 1888; she was a short, thick-necked young woman. She was just recovering from a third convulsion, having had two severe cases before I arrived. I gave her twenty grains of hydrate of chloral and bromide of potassium. On examination I found the os slightly dilated, sufficiently for me to introduce the tip of my index finger. She had had some slight pains during the day and I concluded labor was at hand. While waiting she was seized with a terrific convulsion. In her other convulsions she had bitten her tongue badly, so I called to the lady's mother to stuff a towel in her mouth to prevent that accident from happening again. The old lady, in her excitement, forgot the towel and placed her fingers in the patient's mouth. The result was that I had two patients on my hands, the old lady and the young daughter.

I immediately filled the barrel of my hypodermic syringe with Norwood's tincture of veratrum viride and injected it into her arm. Her pulse was at no time very rapid, but hard and full. In a short time it became soft and about 60 per minute. In the course of an hour she was seized with another convulsion, but not nearly so severe as the previous one. I gave another injection of veratrum and sent for counsel, but this proved to be unnecessary, as she had no more convulsions, and, on a second examination, I found the os closed and all symptoms of labor gone. Her feet were swelled some and there were traces of albumen in the urine. I placed her under treatment for this condition and gave her five drops of veratrum three times a day. In ten days labor set in. She had a slow but normal labor. A healthy female child was born. While removing the placenta she had a convulsion. I gave her thirty drops of veratrum hopodermically and that was the end of the convulsions with her. She made a good recovery and suffered no inconvenience from the effects of the injections.

Since writing the above I have had two more cases of puerperal convulsions under treatment, but as this paper is already long enough, I will not relate them here.

Now the question arises, is it safe to give hypodermically such large doses of veratrum viride to every case of pnerperal convulsions, and, if not, how are we to judge when to give more or less? I would say, in mild cases, give small doses at frequent intervals, but large enough to produce its physiological effects upon the heart's action, or until vomiting is produced in severe cases; or, if the patient were in convulsions at the time of my arrival, I would not hesitate to give thirty minims hypodermically at once and continue it every thirty minutes till the pulse is reduced below 50. I do not believe there is any harm in the medicine as long as the convulsions continue.

If the case is a very violent one with a tendency toward apoplexy with continued unconsciousness, I would only measure the quantity by the effects it produces. For these cases, do not wait with hesitating treatment. If the pulse falls below 48, give one-sixth of a grain of morphia hypodermically; this will arrest the vomiting and soothe the nervous excitability. Of course other indications for treatment should always be attended to, congestion of the kidneys relieved, constipation guarded against, the use of the forceps for immediate delivery considered, etc.

Koch's Treatment of Tuberculosis: Its Diagnostic Value.—Maydl, of Vienna, reports (*Intern. klin. Rundschau*) the results of experiments which he has made with Koch's fluid from a diagnostic point of view. They do not at all agree with the majority of those which have been recorded by other observers. In five cases of undoubted tuberculosis reaction took place, but in one of them (a boy æt. 10 years) only after a fourth injection of 6 milligrammes. Of six perfectly healthy adults used as control subjects, three reacted, one intensely after 2, another after 5, and a third after 8 milligrammes. In two patients suffering from carcinoma marked reaction occurred, the temperature in one rising to 39.1°C. after 2 milligrammes, and in the other to 38.7°C. after 5 milligrammes. Maydl also refers to a case of very pronounced tuberculosis of the larynx and lungs under the care of Professor Schnitzler, in which the injection of 0.025 gramme caused no reaction. These facts have, he says, "seriously shaken" his faith in the new remedy as an indespensable aid to diagnosis.—*Br. Med. Jour.*

Koch's Treatment of Tuberculosis: Cicatrization Without Reaction.—Lindner (*Deutsche med. Wochenschr.*, December 18, 1890) reports two cases in which, although no reaction whatever followed the injection, the local condition was considerably improved. A man who had been operated on for disease of the elbow-joint, judged to be of tuberculous nature, still suffered from painful swelling in the joint together with a fistula which could not be got to heal. After several injections of Kock's fluid, though no reaction had occurred, the fistula closed, the swelling disappeared, and the movement of the joint was restored. The other patient was a man who had a large number of fistulæ over the sternum, and considerable tuberculous lesions in the lungs. Injections even of doses of 3 centigrammes caused no reaction; nevertheless, at the end of a fortnight the greater number of the sternal fistulæ had healed, and the few that remained open scarcely admitted the end of a probe.—*Brit. Med. Jour.*

WEEKLY MEDICAL REVIEW.

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SATURDAY, JANUARY 31, 1891.

The Causes and Treatment of Enuresis.

Dr. Kupke has devoted much study to this disagreeable and often very stubborn disease, and sums up the results of his investigations and experience in a paper published in the *Alleg. Med. Centr. Zt.*

He believes the immediate cause of enuresis is to be found either in a loss of irritability in the lumbar cord, which is unable to transmit to the brain the impulses which it receives, or in an anæsthesia of the nerves supplying the bladder. The causes of this impaired function may be local or general, such as changes in the circulation or in the condition of the general nervous system; anomalies of the foreskin, urethra, or vulva, urinary concretions, oxyuris, diphtheria, epilepsy, chorea, Pohl's disease, chronic urticaria, idiocy, etc.

The most rational method of treatment is galvanism, as practiced by Guyon; the introduction of a metallic bougie as electrode past the sphincter vesicæ, and the application of the other electrode above the pubes or about the abdomen, taking care to employ only a weak current in the beginning; or Unverricht's method may be followed, placing a large anode over the lumbar spine, and a small cathode over the symphysis pubis, and rapidly opening and closing the current with the latter by lifting and replacing it.

Faradization usually gives the most rapid results, especially when combined with the internal administration of Ext. Fl. Rhois Arom. Of this there may be given twice daily 5 drops to children under 3 years, 10 drops to children between 3 and 6 years, and 15 drops to those still older. It is often necessary to persist in the use of the remedy for three or four months.

In using the Faradic current one pole (large cathode)

is applied to the upper part of the lumbar spine, while the small anode is moved about over the bladder. Each seance should last five minutes, and the current should be as strong as can be well borne.

In addition no fluids should be allowed just before bed-time, and the bed should be hard. Applications of cold water are often found useful. The use of strychnine is often productive of good results, and it is best given subcutaneously, in doses of 0.001 gram ($^1/_{60}$ grain).

Dupuytren's Contraction Treated by Hypnotism.

Contraction of the palmar fascia, commonly known as Dupuytren's disease, is a trouble of quite common occurrence, and one about which there is not much unanimity as to the best methods of treatment, save that they are all surgical. Geo. C. Kingsbury, M.D., reports a case in the *British Medical Journal* which he treated by hypnotism. Remarkable as this may seem, views on the pathology of the disease vary much. Langhaus believes the trouble is due to inflammatory changes, partly in the palmar aponeurosis, partly in the neighboring tissues, including the coats of the arteries and capillaries, about which a subendothelial granular adventitia has formed. Dupuytren thought the contraction was caused by fibrous prolongations of the palmar fascia, passing from its lower aspect to the side of the fingers. Goyraud regards these fibrous bands as ligamentous structures, extending from the anterior inferior aspect of the palmar fascia to the sheaths of the flexor tendons, and considers them due to a hypertrophied condition of the subcutaneous filaments of fibro-cellular tissue which are normally present.

Various operations are recommended, among which are Goyraud's, who exposes the contracting bands by a longitudinal incision and divides them in several places. Kocher makes longitudinal incisions and completely extirpates the shortened palmar fascia and its extensions. Busch dissects the contracted fascia from the flexor sheaths by a V-shaped flap, the apex pointing to the wrist; the fingers are then extended and the flap united to the edges of the opposing skin, leaving a V-shaped cicatrix. Lastly, there are the subcutaneous methods of simple and multiple division, the latter method seeming to be the most generally applicable and the most used, although considerable dexterity is required to perform it properly. The open methods leave the hand worse than it was before.

The case reported by Kingsbury is an interesting one, being that of a barber, æt. 45 years, in whom the disease had been present in both hands for eight and twelve years, respectively. His father had suffered from phalangeal contractions. The patient was subject to sub-acute rheumatism, but was otherwise healthy. Pain in the hands was very severe, and was much increased by attempts to work. On grasping a broom-handle or anything round the fingers became cramped, and hot water was necessary to free them. The patient was hypnotised by Liebault's method, and became cataleptic. The fingers were then extended as fully as possible, and massage of the palm was employed. On the next day pain was much lessened, and the fingers could be moved more freely, and a second seance sufficed to restore almost perfect function to the hands. While it may be possible that the treatment employed had the effect of rupturing the contracting bands, still in a case where the contractions were as old as in this, such an occurrence is not one of the most probable events, and one would be justified in insinuating a doubt as to the correctness of the diagnosis.

Painless Circumcision.

We believe that in the performance of circumcision the use of cocaine anæsthesia has to a great extent superseded anæsthesia with chloroform or ether. It is in many ways more convenient, and the only disadvantage which has been found to militate against its use hitherto has been the fact that considerable pain is evoked by the introduction of the hypodermic needle into the exceedingly sensitive foreskin, so that surgeons have not been able to promise patients entire immunity from pain.

Dr. G. W. Overall, in the *Med. Record*, describes his method of circumcision, by which this seemingly trivial yet often serious objection, especially in the case of children, is also overcome. Having applied a rubber band around the penis half an inch or more back of the corona in order to limit the effect of the cocaine, after placing a small pillow on the patient's chest, in order that he may not see the operation, a few drops of a freshly prepared 30% solution of cocaine are injected with a small, blunt-pointed syringe into the preputial orifice. Holding the end of the prepuce with the left hand in order to prevent the escape of the fluid, the latter is then pressed with the right hand in order to enable it to come in contact with the entire mucous membrane. After holding the prepuce for five or six minutes the membrane is anæsthetized; the required amount of solution is then injected into the tissues of the foreskin, but instead of the needle penetrating the skin, as is ordinarily done, it is passed through the mucous layer. If the skin is punctured, pain will be felt, so that some degree of caution is required in injecting. The hint is an excellent one, and that it is quite practical is shown by the report of two cases of the author's. One was that of a child, æt. 6 years, very small, nervous and excitable, who was operated upon while discussing with his mother what toys he would get for Christmas. Another was that of a boy of 14 years who did not have the slightest sensation of pain Overall believes it is always better to use absorbable sutures.

The Vagus Treatment of Cholera.

In the Review of August 9, 1890, we referred to this method of treatment of cholera and allied diseases, which seems to be original with Dr. Harkin. Although we have been looking for reports of other practitioners with the remedy since that time, we have failed to find any until the present. It may be remembered that the treatment as given by Dr. Harkin consisted in painting with a camels-hair pencil the liquor epispasticus B. P., in a narrow stripe over the course of the pneumogastric nerve in the neck, from the mastoid process to the angle of the lower jaw. Milk is forbidden, and the foods allowed are arrowroot boiled in water, with port wine; condensed milk, beef tea and starchy food; as beverages may be given soda water, ice water, barley water and a weak solution of potassium chlorate. Dr. Harkin enjoined absolute rest, and also employed artificial warmth and stimulant applications to the extremities, as of turpentine, mustard, etc.

Dr. Jasper Cargill, of St. Andrew, Jamaica, reports in the *Brit. Med. Jour.* several cases in which he employed this treatment. One was that of an infant, æt. 2 months, which had cholera infantum, and was pretty far gone before the vagus treatment was thought of. The diarrhœa was serous and profuse, and nothing could be retained on the stomach; the child had had several convulsions. In a short time after applying the blister fluid the child's condition changed marvellously; she soon slept calmly, warmth returned to the extremities, vomiting ceased, food was retained, and purging diminished. The child recovered rapidly.

Another case was that of a colored child, æt. 2 years, with gastro-enteritis. The patient had been ill some days and was in a bad way, purging freely and vomiting everything. Prognosis most unfavorable. The effect of the vagus treatment was in this case even more marked than in the first.

A colored woman, æt. 54 years, had acute gastritis; she had retained nothing on the stomach for three days, and had fainted several times from weakness. The course of the vagus was blistered, and the patient vomited only once afterward. A few hours later she retained light food, and improved steadily from that time on.

Still another case reported was that of a woman, æt. 60 years, who had been ill for four days with vomiting and purging. When first seen she was almost insensible, and while being examined she had an involuntary watery evacuation in the bed. Without any expectation of benefit the blister was applied over the vagus, and on the following day the patient was able to retain eggs, milk and brandy. On the next day she sat up in bed and conversed with the doctor.

Though these are the only cases reported in detail by Dr. Cargill, he states that he has had numerous others in which the results were about as good. If any of our readers have made use of this treatment, we should like to get reports of their experience, whether the results were good or bad, for in testing new methods of treatment negative reports are quite as valuable as affirmative ones.

MEDICAL ITEMS.

Cold Weather and High Death-rate.—The cold weather in England has raised the death-rate in London to thirty per thousand.

Deserved Honor.—The King of Greece has named Professor Brouardel, the eminent French medical jurist, Commander of the Order of the Saviour.

Deaths From Soothing Syrup.—Six deaths from the use of soothing syrups have recently been reported by Dr. A. G. Belleau, to the Quebec Board of Health.

Facial Neuralgia.—Dr. Kirchstein attains good results by treating neuralgia of the supra-orbital and infra-orbital nerves wirh hypodermic injections of a 2% carbolic acid solution at the site of emergence of the nerves.

Burning of a Hospital.—The Missouri Pacific Hospital at Sedalia, Mo., with a capacity for 150 patients, was destroyed by fire on the 20th inst. The 40 patients in the building were rescued with some difficulty.

Sumbul in Cholera.—The Russian Government has sent several physicians to Asia Minor to test the value of the sumbul treatment in cholera. The plant, ferula sumbul, is a native of Turkestan, and is much used in some localities as an antispasmodic, but the rationale of its use in the treatment of cholera has not yet been disclosed.

Another Claimant for Priority in the discovery of an anti-tuberculous lymph has appeared in the person of Dr. Niepce, a French physician of Allward, who has addressed a letter on the subject to the French Academy of Medicine. He states that he published a monograph in 1886, and refers to Cornil to substantiate his claim.

Arnica Eruption.—At a meeting of the Paris Biological Society, M. Dupuy mentioned the case of a patient who was attacked by pseudo-erysipelas in consequence of an application of tincture of arnica. He regarded the fact as very curious, and remembered that essence of rue exerted a similar action.—*Druggists' Circular.*

Dr. L. Ch. Boisliniere, of this city, is engaged in writing, and promises the early appearance of, a book, which will certainly prove of great value to general practitioners, and concerning which many anxious in-

quiries have already been made as to the date of its publication, etc. The title of the work will be "Obstetric Emergencies and Operations."

A Chinese Local Anæsthetic.—The Chinese are said to produce a remarkable anæsthetic by placing a frog in a jar of flour and irritating it by prodding it, when the creature exudes a liquid which forms a kind of paste with the flour. This paste, dissolved in water, has well-marked anæsthetic properties. After the finger has been immersed in the liquid for a few minutes, it can be cut to the bone without any pain being felt.

Tubercular Infection from Milk.—Courtenay De Kalb, writing to the *Nation* from Eastern Peru, says: "Cattle are raised here solely for beef, milk never being used. It appears that in the tropics milk is even more likely to be infected with the bacillus tuberculosis than in the North, and so many cases of consumption have been traced to its use that the entire population, with scarcely a single exception, leaves it absolutely alone.—*Druggists' Circular.*

Peptonuria After Koch's Injections.—According to a communication made by Prof. Koehler at the last meeting of the Vienna Society of Physicians, the toxic effect of Koch's lymph is marked in some cases by the presence of peptones in the urine of the patients who have been injected. In 33 out of 200 cases the presence of peptones could be tested; also in 2 cases of non tuberculous patients who had been injected for control, peptonuria occurred after the injection, though no reaction could be observed.

"Annie Rooney" as an Emetic.—The *Pittsburgh Medical Review* notes the curious case of a woman who was much troubled with vomiting during the early stages of pregnancy, and who was at the same time regaled with frequent renditions of "Annie Rooney" by a musical neighbor. In some way she came to associate the song and the nausea together, and at this time, the end of the eighth month, she vomits only when she hears the song. While attending entertainments during last summer she was obliged to leave if "Annie Rooney" was on the list.

For Bromidrosis.—The *Rundsch. f. Pharm.* recommends the following for foul-perspiring feet: Before going to bed wash the feet with very hot water, then put on woolen stockings and dip the feet in methyl alcohol. The stockings are left on over night. Repeating this every night for a week is said to effect a cure.

The treatment with chromic acid is no longer used in the German army. Though effectual, it was found to be dangerous, and productive of unpleasant after-effects. Symptoms of poisoning frequently appeared, and if the patients afterward sustained slight wounds or abrasions of the feet, the lesions were prone to inflammation and suppuration.

How to Give Chloralamid.—Much depends upon the proper administration of the new hypnotic, choralamid, to obtain the full effect and satisfactory and beneficial results. The dose is from 15 to 60 grains, with an average dose of 30 grains. Chloralamid is soluble in about 20 parts of cold water, and in 1½ part of alcohol. An additional caution is necessary: Never dissolve or dispense chloralamid in hot water or warm solutions, as the heated preparation decomposes. The best modes of administration are: 1. In a tablespoonful of whisky or brandy. 2. In properly proportioned solutions with wine, spirits, or spirituous compounds. 3. In a small cup of cold water or cold tea. 4. In powder form, in wafers or cachets washed down with cold water.

International Review of Bibliography.—The fourth number of the "Revue Internationale de Bibliographie medicale, pharmaceutique, et veterinaire," conducted by Dr. Jules Rouvier, of Beyrouth, Syria, has recently appeared, and it fully sustains the very favorable impression made by the previous three issues of its inaugural year.

It is the object of the editor and his staff of correspondents and assistants, to collate and embrace in a readily acccessible shape in this volume of quarterly issue the titles, authors, date and medium of publication of the literary productions, medical, pharmaceutical and veterinary, of the entire world; and as far as we can observe, the results are eminently satisfactory.

Our congratulations are, therefore, tendered to Dr. Rouvier on his first year's work.

Professional Titles in Italy.—The Prefect of the Province of Milan recently sent a circular to the mayors of all places within his jurisdiction instructing them to set the legal machinery provided for that purpose in motion against all and sundry who shall dub themselves "Doctor" or "Professor" without possessing any valid claim to these titles. The Prefect points out that the usurpation of academic degrees and professional titles is more frequent, as well as more serious in its possible consequences, in the medical profession than in others. According to him, it is quite a common thing for practitioners of "minor surgery" (*bassa chirurgia*), and even "dentists," to call themselves "Dr.," "Professor," etc. The only persons who have a legal right to these learned prefixes are, as the Prefect says, those who have obtained the degree of Doctor from a University, or have had title of Professor conferred on them by the Minister of Public Instruction.

McDowell's Method of Controlling Epistaxis.—Many new devices for stopping nasal hæmorrhage have been published lately, but Dr. H. D. Wood, of Fayetteville, Ark., believes that the method original with Dr. John McDowell, and taught for many years by Prof. John T. Hodgen, of this city, is still superior to them all. (*Med. Rec*). It is to introduce a condom into the nasal cavity and fill with air or water. To keep the

tube from filling on the outside and not on the inside of the nose, cut off 2 or 3 inches of the open end, and, introducing a No. 5 or 6 soft catheter about half an inch into the bag, tie the open end of the latter firmly around the catheter. Dip in water, twist the catheter till it touches the end of the bag, and introduce after causing the patient to blow his nose to free it from clots. Then fill with air or water and plug the catheter. To remove it, let the air or water out, twist slightly and withdraw.

An Early Sign of Uterine Cancer.—In a paper published by Dr. Charles Audry in the *Lyon Medicale* for November 23, 1890, it is claimed that in doubtful cases of uterine inflammation, especially when confined to the neck or cervical cavity of the uterus, and in which a diagnosis can ordinarily only be made as the result of microscopical examination of excised fragments, in every case in which fragments of tissue may be scratched off from the cervical cavity by the finger-nail the epitheliomatous nature of the disease may be positively affirmed. In chronic metritis the tissues to the touch appear sometimes hard and sometimes soft, but in no case is it possible to scratch off fragments of the mucous coat by means of the finger-nail, with the single exception of cancer. Further, the author claims that there is no form of epithelioma in this cavity from which fragments may not be so removed. This process is evidently simple, and, if confirmed by others, will be of great value in clinical practice.—*Ther. Gazette.*

A Family of Freaks.—An article in the daily press which is worth reading, whether it be true or be only the conscientious work of a gifted and ablebodied Ananias, is the following:

The family of Albert Ross, of Munson, near Adrian, Mich., possesses features enough to start dime museum freaks. The oldest boy has 13 toes and an equal number of fingers. The next boy cannot speak unless he thrashes his arms and legs about like a wind-mill. The third son is deaf and dumb and a wonderful contortionist. The eldest girl is hunch-backed and a remarkably fast talker. The second daughter has a two-inch red birth mark of bright scarlet around her neck and each wrist. The twins, 3 months old, are queer. The boy weighs forty pounds and has a head of hair like a brush heap, while the twin sister is as bald as a billiard ball. Both cannot laugh or cry at the same time. When one laughs the other cries. The girl has a little voice, while the boy's is a deep bass and can be heard in the road. The family is well to do.

The Status of the Lymph in Berlin.—Dr. Edwin Ricketts recently read to the Cincinnati Medical Society a letter which he had received from Dr. I. C. Graham, of Columbus, O., now studying in Koch'a laboratory at Berlin. A part of it is as follows:

"The Koch cure excitement has subsided, almost collapsed, here.

"Those loudest in its favor when anticipation stimulated their views have become silent or very conservative under realization. Gerhardt, Bergman, Leyden and other big guns are not pronouncing it a success, as they did before trying it.

"I have seen a great number and variety, and must say that results, as viewed from Koch's premises, are extremely disappointing.

"Lupus seems to be healed. Joint troubles are doubtfully improved.

"Consumption is not cured up to date. Advanced cases are certainly killed, as in the Charity Hospital post-mortem room it's a poor day when there are not one or two sections on iujected cases. Most of them or all of them would have died at any event, but appearances indicate they were hurried by the lymph.

"The scramble which has been and is being made for the lymph by persons whose only object is the dollar, mark, franc or guinea to be gained, has been a disgrace to the profession.

"Koch is a great man and a capable investigator, but his premature publication of the incomplete investigation shows what blunders even a wise man may make.

"Our old backwoods saying probably has no parallel in the German: 'Be sure you are right, and then go ahead.'"

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCITEY.

Stated meeting, Saturday evening, January 3, 1891.

Dr. J. K. Bauduy, in retiring from the presidential chair, and installing Dr. L. Bremer as President for the ensuing year, said: I congratulate this society upon the selection that it has made of its new President: a gentleman erudite and eminent in his profession, and without desiring in any sense to be personal to others, a gentleman, I think, who has accomplished more scientific work upon this floor than any member with whom I have the honor of being acquainted. He has not only accomplished a vast amount of scientific work, but work of the highest scientific importance; therefore I once more congratulate the society upon the selection of its President, Dr. Bremer.

Dr. L. Bremer, in accepting the gavel, said: After such lavish praise, to which I am unaccustomed, I can hardly express in words what I feel just now. I very highly appreciate the remarks of Dr. Bauduy, although I must admit that they are exaggerated. However, I can say this for myself, that I have done so much as was in my power to attain to some scientific proficiency. I am very well aware of my shortcomings, however, and I am in the same position as the majority of you; I have to work for my living; but what spare time I have I devote to the more ideal branches of science. If it is in my power to contribute anything toward elevating the standard of this society, which I think is pretty good, I certainly shall do it.

Dr. Prewitt presented a patient and read the history of a

Case of Hæmophilia.

Dr. Alleyne.—The question might be asked in regard to these bleeders whether the phenomena arise from a peculiar condition of the blood or that of the walls of the vessels. Generally in these cases we try to produce a condition of coagulability of the blood by the administration of iron or ergot; the ergot acting in its specific manner contracts the capillaries, and thus may be explained the results obtained. If the condition of the tissues gives rise to the symptoms presented, our attention should be rather directed to the employment of agents that will act upon those tissues, and contract them, as we may with ergot, and disregard the condition of the blood.

Dr. F. J. Lutz presented pathological specimens and said he had two specimens which illustrate interesting conditions; one was a heart taken from a woman of easy virtue, who was supposed to have died from an over dose of morphia or some other poison; but on post-mortem an aneurism of the arch of the aorta was found about two inches from the valves and presenting a rather unusual condition. The aneurism is on the convex surface of the arch toward the right side and had formed firm adhesions with the pericardium; and on its anterior surface is a circular opening, perhaps an eighth of an inch in diameter, through which the blood had oozed and completely filled the pericardial sac, the larger portion of the blood being coagulated and producing what Rosse has termed a "tampon" or "tamponade" of the pericardium, a condition which occurs in wounds of the pericardium; the term is intended to convey the impression that the blood is gradually stuffed into the pericardial sac, and, by its mechanical presence, prevents the action of the heart. The original cause of the aneurism is a matter of conjecture, but in all likelihood the woman had syphilis, although no enlarged glands were found.

The other specimen was a portion of bowel which he had resected. The patient, a woman, was taken sick about Christmas day with abdominal pains and vomiting. After a day she got better, but the symptoms returned. Various things were done for her relief before he saw her, in consultation, on last Tuesday, December 30, about 8 o'clock; after a thorough examination he found a right inguinal hernia about the size of a small hen's egg. She at once consented to an operation, which he began at 9:30. The incarcerated, strangulated hernia had probably existed since Christmas day—some four or five days. He found very little fluid in the sac itself; but the gut being in a condition of doubtful vitality, and it being questionable whether it would live, he determined to resect the bowel, and accordingly cut out a wedge-shaped portion of the bowel, in all perhaps four inches long. One portion of the bowel being much less in circumference than that of the opposite side, the difference being more than half an inch, he did not adopt the method of uniting the severed extremities of the bowel by means of "Brokaw's rings," which ordinarily is a very admirable method, but proceeded to unite the bowel by a continuous suture, to which was added subsequently a "Lembert suture" to give additional strength. Twenty-four hours after the operation the patient began to vomit, and vomited incessantly stercoraceous material. Her abdomen was tympanitic and the peritoneum covering the bowel suggested the existence of peritonitis; the vomiting occurring with very little pain, he supposed he had to deal with a general peritonitis. She vomited everything. He avoided giving her morphine, simply gave her ice by the mouth and luke warm water by the rectum. Vomiting continued during another twenty-four hours; no flatus passed by the bowel; and her vomiting suddenly ceased. He then administered half ounce doses of the sulphate of magnesia, which were followed by large liquid evacuations from the bowel, one of which filled, as the nurse stated, a chamber. The local wound was treated by a drain of iodoform gauze. This was removed after twenty-four hours; it was perfectly sweet. Subsequently a second gauze or drain was removed in good condition; but the third smelled very badly. Still she had an evacuation after the offensive odor had appeared in the tampon, and he thought that the general peritoneal cavity had been thoroughly shut off and inferred, as a result of the administration of the magnesia, that the tube was pervious and the wound thoroughly closed. She had no appreciable rise of temperature and is now beginning to take liquid food.

The President then delivered his Inaugural Address, which will appear in a later issue.

Stated meeting, Saturday evening, January 10, 1891. The President, L. Bremer, in the chair.

Dr. W. B. Dorsett read a paper on

Ovaries and Fallopian Tubes,

presented specimen and said: This case is announced on the programme as one of abscess of the ovary; it is more, inasmuch as the tubes are involved from their junction with the uterus to the fimbriated extremity, and when they were felt in their position they presented a perfectly smooth and round tumor, about the size of a large lemon. The adhesions to the large bowel on the left side were very firm, rendering it necessary to draw up the bowel to some distance before the adhesions could be ligated. He was unable to account for the rapid progress of peritonitis which ensued. He believed if the case had been allowed to go on for two or three weeks longer, he would have had a better result. He thinks the case was almost too acute to be operated on. He thought the time of operation a question to be thought of and worthy of discussion.

Dr. Y. H. Bond regarded the specimen as very interesting. Abscess of the ovary is by no means of common occurrence, but the most common form is just that which is reported, *i. e.*, that following the puerperal condition, and it is usually preceded by pyosalpinx, pus is usually found in the Fallopian tube, the peritoneum becoming secondarily involved. It would be interesting and important, could we see these cases sufficiently

early, to note just what portion of the ovary becomes involved first; whether the Graafian follicles or the interstitial tissue. We have two classes of inflammation affecting the interstitial tissue. In the case of infectious diseases, scarlet fever, measles and typhoid fever, we often have an affection of the follicles, sterility being frequently a consequence; but in the puerperal form, that form in which the inflammation seems to begin from without and extend through the substance of the ovary, it would be a nice question to determine whether the form of inflammation be interstitial or follicular, and it would be well for gentlemen who have the opportunity of presenting or of obtaining specimens of this sort to present them to the pathologist for his study in order that we may reach a correct decision. It is still sub-judice—one of the unsettled questions.

In regard to the position of Dr. Dorsett as to the time of operating, the speaker thought it would not be possible to operate too soon, whenever symptoms indicate the presence of pus in the pelvis, and especially pus in the ovary. He thought the error, if any at all, lies in the direction of his not having operated soon enough. The pus in this particular case may have been exceedingly virulent, and in cleansing the abdominal cavity he may not have succeeded in removing all of the virulent pus accumulated, and hence the occasion of the peritonitis. He thought he certainly did not err in operating too soon.

Dr. T. F. Prewitt said he did not exactly understand the relation between a salpingitis and suppurative ovaritis. How does suppurative salpingitis induce a suppuration of the ovary itself? It cannot be referred to continuity of structures, because the tube is not attached to the ovary, save by a delicate fimbria and only in contact with it during the sexual orgasm. The pus may be poured out over the fimbriated extremity and run over the ovary, but it will run over all the other structures adjacent, and if it were caused by simple continuity, we would have suppuration elsewhere as well. There would have been also a pelvic suppurative peritonitis. In cases of measles, scarlet fever and other similar diseases, as the exciting cause, the changed blood conditions then acquired cause the suppuration of the ovary; when it occurs, the glandular structures are involved through the medium of the blood. But how is it involved in this case? How is the ovary affected in these cases of salpingitis? What are the channels through which the substance of the ovary becomes infected and suppuration takes place when there is no suppuration around outside? Why should suppuration take place in the substance of the ovary in case of salpingitis?

As regards the question of operating at that particular period, he thought Dr. Dorsett had well expressed a doubt. The pus was practically encysted, and he thought it would have been safer to wait. There was a general acute condition but no extravasation of pus into the peritoneal cavity—there was inflammation. If the sac had ruptured and pus was thereby liberated into the peritoneal cavity, of course the operation could not have been done too soon; but in this case it was encysted pus—it was an abscess; and it at least presents a question whether it might not have been better to have waited still longer.

Dr. Lutz said he was a little surprised during the past week when reading the views of Spencer Wells on the subject of drainage in connection with abdominal surgery. He thought it the practice now to drain more frequently than formerly; and Mr. Wells takes a decided position against it in his lectures before the Royal College of Surgeons recently published. In speaking of drainage he mentioned several cases of papillomatous involvement of the peritoneum in connection with degenerative changes of the ovary and similar conditions, and says, "when in doubt whether or not to drain, the benefit of the doubt should be given in favor of non drainage;" a position at variance with the position taken, he thought, lately by most surgeons. From the fact of the rapid involvement of the peritoneum, the general peritonitis being set up only twenty eight hours before death, he thought possibly this was an instance in which drainage could properly have been instituted. He did not wish to affirm that the termination of this case would have been changed thereby; still with the views which he held respecting drainage in abdominal surgery, it suggested itself that possibly in cases such as this, drainage might be the better procedure, rather than to close the abdominal cavity.

Dr. Bond said in regard to the query of Dr. Prewitt, as to how the pathological process extends so as to involve the substanceof the ovary, he would call attention to the fact that the ovary is covered by a germinal membrane from which the organ is formed; it also dips down into the substance of the ovary. The posterior portion of the ovary has no peritoneal investment, at least it is so contended by most anatomists. Now with pus escaping from the fimbriated extremity of the fallopian tube, following up the germinal membrane which enters into the substance of the ovary and out of which the Graafian follicles are formed, we can readily understand how there will in this manner be an extension of the inflammation. Either that is the explanation or else it is through some nervous agency.

In regard to the position of Mr. Wells quoted by Dr. Lutz upon the subject of drainage, Dr Bond recently had a case that impressed him forcibly with the importance of drainage. Here is a letter received to-day from Dr. Day.

Winchester, Ill., Jan. 9, 1891.

Dear Doctor Bond.—I am pleased to inform you to day that I have discharged my patient, she having made a good recovery.

Six weeks ago he went to Winchester, Ill., and operated upon a young woman, removing an ovarian cyst of the right side. The cyst extended up to the umbilicus, and was adherent everywhere. Between the upper portion of this unilocular cyst up to the diaphragm there was pus everywhere. Being firmly adherent, it was

absolutely necessary to detach it, and with the utmost care lest the bowel should be torn. After the operation the abdominal cavity was washed out as thoroughly as he could, pitcherful after pitcherful of boiled water being poured in until he supposed no trace of pus longer remained. When he had put the sutures through the abdominal wall and was about to close up the abdomen the woman commenced to vomit, or made efforts so to do, and to my astonishment a large quantity of pus came out. This pus must have been concealed beneath the stomach—the stomach, liver and spleen were literally suspended in it; the pus must have been confined beneath these organs, for when the diaphragm descended there occurred this liberation of pus even after the most abundant and free use of water. I again proceeded to wash out the cavity, pouring in several gallons more of water from a pitcher, and after I had cleansed the abdomen thoroughly, as I believed, I closed it, having first put in a drainage tube. For three days thereafter nothing but a serous discharge flowed from the drainage tube, but on the fourth day there was an abundant discharge of pus, and a few days later the discharge of pus was as much as 12 ounces during twelve hours. This case illustrates the propriety of drainage through a tube placed in the abdomen. A rubber tube was inserted and the pus syphoned out. He was surprised to hear gentlemen contend that drainage accomplishes nothing. It did accomplish a great deal in this case. If there had been no drainage tube used, what would have been the result in my case? What would have been the fate of that woman? A second operation would have been necessary and a drainage tube in addition. He thought if drainage tubes are properly attended to, and due precautions taken to prevent the fluid in them from becoming contaminated, much good will be accomplished; but if we put in a drainage tube and permit the fluid adhering to the drainage tube to become poisonous, then it is a great deal better that we should close up the abdomen at once, and hope that there may be no effusion into the abdominal cavity.

Dr. Bremer said he would like to ask Dr. Prewitt respecting the question which he raised as to the abscess of the ovary, is it this. Do you think it strange there should be abscess of the ovary without pyosalpinx?

Dr. Prewitt replied, no sir; the point that he raised was this: What relation is there between the suppurative pyosalpinx and the suppurating ovary? What is the channel of communication between the ovary and the Fallopian tube which should induce abscess of the ovary in conseiquence of suppuration of the tube?

Dr. Bremer thought there is at least a contiguity between the salpinx and the ovary.

Dr. Prewitt said if it is the result of contiguity why is it that the peritoneum immediately over the tube is not inflamed and in a state of suppuration? If suppuratisn is the immediate result of the contiguity of the structures, why are not all the structures which are contiguous and continuous not inflamed and suppurated?

Dr. Bremer replied we can perhaps obtain light on such subjects by considering analogous cases elsewhere. Dr. Barclay presented a case of abscess of the brain some time ago; this abscess was the result of a chronic otitis media. There was no pus in the bone of the skull, none in the dura mater, and none in the subjacent membranes; but there was pus in the brain, and the only palpable connection present was an adhesion of the dura mater to the subjacent membrane by a very thin strip of connective tissue. Here was a road which the germs had taken through the contiguous membrane. There were no lymphatic channels by which the germs could have been carried to a certain portion, but the simple contiguity of the structures sufficed to facilitate the migration of the microbes, which left behind them no pus but simply had the result of producing inflammation with a scar. He therefore experienced no difficulty in understanding why there might be an ovarian abscess without the involvement of the adjacent structures. Two factors must always be considered, one is the germ and its virulence—its pathogenetic properties; and the other is the vulnerability of the structure. The ovary is at certain periods a much more vulnerable structure than the surrounding structures; at times there is much less power of resistance to the invasion of the bacteria than at other times; and so it happens, in all probability, that just at that point the whole virulence of the invading germs is concentrated, and at other points the germs are destroyed by the leucocytes or rendered harmless by the antiseptic properties of the blood. Again it must be remembered that as soon as an abscess is formed a concourse of leucocytes takes place on all sides which arrange themselves as a solid phalanx well organized to inhibit and circumscribe the progress of the enemy. Why is it that an abscess formed in the lung does not involve the entire lung? Why do not the microbes invade the air passages and the whole lung? We know that when an abscess takes place there are leucocytes at the periphery which form this phalanx. These leucocytes afterward become organized under favorable circumstances, and are formed into connective tissue, and these form the pyogenic membrane.

Dr. Lutz said Dr. Prewitt desired to know the avenue of infection of the ovary from the pyosalpinx. Aside from the anatomical fact referred to by Dr. Bond, the peculiar arrangement of the mesentery of the ovary gives a clew to the manner in which the pyosalpinx infects the ovary. Calling to mind the anatomical configuration of the intestine in its relation to the mesentery, the mesentery is formed by two layers of peritoneum which separate and pass over the intestine, or rather the intestine has pushed itself between the two layers of the peritoneum in order to form the mesentery. Now a very analogous anatomical configuration exists in the relation between the Fallopian tube and the ovary. The ovary is suspended in the mesentery, as it were, to carry out the anology, and taking as a starting point the Fallopian tube, the mesentery passes over the ovary separating into two layers, and between these two layers is situated the ovary. The two surfaces of

the peritoneum forming anywhere the mesentery are united by connective tissue that can be dissected microscopically, at least, into two layers. Now it is an easy avenue for the pus-producing germs, or germs which have carried on their work in the Fallopian tube, to travel between the layers, and the distance is very short to travel between the layers of the mesentery or peritoneum to the ovary. He thought Dr. Dorsett did not make the statement that the peritoneal membrane between the ovary and Fallopian tube was in a state of inflammatory action. On the contrary he failed to understand how so extensive an inflammation of the tube and so extensive an inflammation of the ovary with the adhesions which existed, persisting for a long period and involving the entire broad ligament, could have existed without an involvement of all the parts in contiguity.

Dr. Barclay.—The President has alluded to a case of cerebral abscess reported by me as an analogous case to the ovary which suppurated as supposed from the pyosalpinx. Cases of abscess of the temporo-sphenoidal lobe in suppurative otitis media have been found where, by most competent observers, no trace whatever of the channel or track over which this took place could be demonstrated, and a number of cases are recorded where an abscess in a corresponding position on the opposite side of the brain in the other hemisphere has been found which was believed to have resulted from the ear trouble on the opposite side; the ear, on the side where the abscess occurred, never having been involved. Some doubt about that may exist, but competent observers have reported cases or this kind. We may have metastatic abscess without any direct contiguity.

Dr. Prewitt said he could not accept Dr. Lutz's anatomical explanation. It does not afford a satisfactory explanation. The infection might have extended downward, it is true, but granting the premises of Dr. Bremer the conclusion is cheerfully accepted. By demonstrating that the ovary is a more susceptible tissue, we can understand how the microbes, passing from the salpinx through that tissue, might find a lodgment and set up active operations in the ovary, that tissue being more susceptible to their action than the connective tissue through which they might have to pass.

Dr. Bond said, upon reflection, the position of the president appears to be the correct one, that is that it is due to the fact that the tissues of the ovary are the more vulnerable. Take, for instance, the lymphatic circulation of the external genitals; the vessels all pour their contents into the inguinal glands, and any involvement of the external sexual organs will be manifested in those glands. Again, take the lymphatics of the broad ligament and uterus and of the ovaries, they empty into the lumbar glands, they intercommunicate freely, and that must be the channel of communication, and the bare fact that the ovary is implicated when other structures appear free from infections must be due to the fact that it is more vulnerable.

Dr. Dorsett said in regard to the intimation of Dr. Bond that the peritonitis was the cause of death of the patient: If the peritonitis that followed the bursting of the abscess wall caused the death of the patient, why didn't the patient die of peritonitis at the beginning? There was certainly a leakage of pus from the tube into the cavity at the very beginning, unless it be possible that it became more virulent from having been exposed to the air during the operation. It was not quite clear to his mind why it should have caused the death of the patient after the operation, or should have produced a general peritonitis, when it did not do so at the beginning.

As to the use of the drainage tube, he related the case of a patient in Illinois upon whom he operated, in which he used a drainage tube, and was confident that the drainage tube was the salvation of his patient; admitting that a considerable amount of pus escaped from the drainage tube, how does he know but what the pus was rendered virulent by infection from without through the tube.

Dr. Bond.—There was too much of it, doctor.

Dr. Dorsett.—The peritoneal cavity was opened and it thus became vulnerable. He believed if he had to do his operation over again, he would wait at least two weeks longer before operating. He believed the patient would have had a better chance of recovery, because of the acute inflammation present at the time of operation. There was already peritonitis, and he thought it would have been better while it was circumscribed to have kept it so rather than to stir it up and make it worse. He did not believe the peritonitis was due to the pus that escaped from the cavity of the ovary, but that a peritonitis existed from the beginning, and simply the stirring it up, pulling and breaking up the adhesions and tying them, aggravated it.

Dr. Bond.—The question has agitated the minds of many men, whether or not the chances of the patient were compromised by operating during the existence of an acute peritonitis. In order to reach a proper conclusion upon the subject, one must have had large personal experience; those who have had less may refer to the reports of Martin, Petit and Tait, all of whom state that it is wiser to operate promptly and ignore the fact that the acute peritonitis exists.

Dr. Prewitt said he had two specimens not of much intrinsic interest, but from some points that they suggest. The first is of Fallopian tubes and ovaries which he removed about ten days ago from a young woman, æt. 22 or 23, who had been married six years, but borne no children. Two and a half years ago she had an attack of inflammation of the pelvis, or at least what was thought to be so, was in bed for two or three days; had no physician; had a good deal of suffering, and was up and about in two or three days; had fever, etc., at the time and suffered a great deal. She says she has never been well since. He saw her about three weeks ago; she was then in bed just recovering from menstruation and suffering very much; had but little fever but severe pain in the pelvis. On making a digital exami-

nation he found exquisite tenderness at the roof of the vagina, and could feel, on either side of the uterus in Douglas' cul-de-sac, hard swellings. Considering the history of the case and her condition he told her he thought nothing short of a surgical operation would relieve her. Having never borne children she grasped at the idea of a surgical operation that she might be enabled to bear children. He assured her, however, that she would never bear children. About ten days ago, she having gone to the hospital, he operated upon her. He found both ovaries crowded in behind the uterus and almost in contact; they seemed to be buried in pockets requiring to be peeled out; the tubes were very much enlarged. He did not then notice pus in the tubes, but on pressing on them now a substance very much like pus appears. At the time of operation a bloody looking fluid came out of them; and in the extremity of one there seemed to be a blood cyst which, though ruptured, could readily be seen. He expressed a degree of conservatism about removing these ovaries; perhaps too many of them are removed, but until the gynæcologists shall teach us how to deal with these cases without surgical operation there is nothing left for surgeons to do but to remove them. A woman's life is hardly worth living if in suffering as this woman was.

The other is a case of multilocular cyst of the ovary. The patient, æt. 38, first noticed it six or eight months ago, which he removed yesterday. She has today had no rise of temperature, has not vomited since the operation, and is doing as well as possible. He removed the companion ovary also; in it several little cysts are distinctly observable. The question arose in his mind whether it is justifiable to remove the opposite ovary as frequently as it is done. It is generally admitted where there is marked cystic degeneration and a considerable cyst has developed in one, it is proper to remove the opposite ovary also, and it was his opinion that in most cases of ovarian tumors apparently confined to one, the opposite ovary is disposed to undergo cystic degeneration. Four years ago he removed a tumor of the right ovary; observing nothing particularly wrong with the left he left it intact, but in twelve months the patient returned with an ovarian cyst of that ovary larger than the former; he then removed the remaining one. She made a good recovery. She, however, subsequently died with sarcomatous tumors which undoubtedly were infections from the site of the ovaries. He removed a sarcomatous tumor from the left side of her neck, being obliged to dissect it out from the cervical plexus of nerves and other organs deeply situated. It is very common to find small cysts in the ovary, and the question arises will they all develop into large cysts, or might they not in many cases remain stationary without developing any further? The ovary presented is no larger than it ought to be, but owing to the small cysts in it, which was the chief abnormality, he thought best to remove it.

Dr. Bond.—Dr. Prewitt has raised a very important question when he asked whether or not the presence of a small cyst in an ovary is an indication of the fact that it would develop into a large cyst, and therefore an indication exists for the removal of the ovary. He replied No; the presence of small cysts does not furnish a justification for the removal of the ovary, for the reason that in most all cases of chronic ovaritis, that is a feature of the affection. In nearly all cases of chronic ovaritis we have small cysts in the ovary, and it is indubitably determined that in the vast majority of cases of chronic ovaritis, these cysts disappear and do not develop into large cysts; they disappear and the patient recovers, though sterility is the usual consequence. This is a matter which should be seriously considered because the castration of women is sufficiently common to-day and we should not add any further inducement.

Dr. Prewitt said he thought it would be a rather difficult matter for Dr. Bond to establish the position he takes. How would he make a diagnosis and show that in chronic ovaritis cysts of the ovary are always present and afterward disappear. Of one thing he was convinced: we often do find small cysts in the ovaries in the dead house, but I have not been particularly impressed with the conviction that they would have developed into ovarian tumors. It is true ovarian tumors do develop in that way, but it would require a large mass of experience to settle that question. If we could have the result of the experience of numerous operators, who had had great experience and who had left ovaries similarly affected in situ and intact, and they did not develop into larger cysts subsequently; it would be a most valuable fact.

But having removed one ovary the tendency of operators is, if they find a cystic development in the opposite ovary, to remove it.

On the subject of drainage this was employed in the first case he operated on—the case in which he removed ovaries and tubes—because finding very firm and extensive adhesions he had great difficulty in getting in and pulling them out and tearing the adhesions, and after washing out the cavity he put in a drainage tube. The opinion of Sir Spencer Wells is entitled to a great deal of weight; but he thought his statement should be reversed; when in doubt we should drain, for the reason that no possible harm can result by the drainage if it is properly done, and under strictly antiseptic precautions and the tubes removed in twenty-four or thirty-six hours. It is true that the patient may get well a little sooner without the drainage tube.

While in Berlin he witnessed several operations, and was particularly struck with the manner in which the surgeons tore away the adhesions, and although there might be considerable blood, they did not even wash out the bowel or put in a drainage tube in cases where he would not have dared to neglect it. He saw Olshausen operate in a case in which considerable adhesions existed and there must have been considerable drainage into the cavity, yet he put in no drainage tube.

In that case there was nothing but blood, and German surgeons seem to act upon the principle that blood is not septic, contains no septic germs, and the mere presence of blood in the abdominal cavity need not give rise to apprehension.

Dr. Bond.—The observations of Nagle, Gusserow, Petit and Martin have served recently to elucidate the very subject to which Dr. Prewitt calls attention as to the disappearance of small cysts and prove it in this manner:

If in performing laparotomy they found small cysts in the ovary they did not remove the organ, and bimanual examination of the ovary afterwards showed that the ovary had resumed its natural size, and if the cysts could not be felt, it was proof they were not there.

Dr. John N. Washington read a paper on

Diphtheria.

SOCIETY NEWS.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

We are enabled to make the following announcement of places and dates, in the order of their occurrence, of meetings of the various State and national medical societies, from information furnished by the secretaries of the respective societies:

Medical Society of the State of New York, Albany, Feb. 3, 4 and 5.

South Carolina Medical Association, April (date and place not known).

Florida Medical Association, Pensacola, April 14 and 15.

Medical Society of the State of Tennessee, Nashville, April 14, 15 and 16.

Medical Association of the State of Alabama, Huntsville, April 14, 15, 16 and 17.

Mississippi State Medical Association, Meridian, April 15, 16 and 17.

Medical Association of Georgia, Augusta, April 15. 16 and 17.

Iowa State Medical Society, Waterloo, April 15, 16 and 17.

Medical Society of the State of California, Sacramento, April 21, 22 and 23.

Medical Association of Montana, Helena, April 24 and 25.

Medical and Chirurgical Faculty of Maryland, Baltimore, April 28, 29 and 30.

Texas State Medical Association, Waco, April 28, 29 and 30, and May 1.

State Medical Society of Arkansas, Hot Springs, April 29, and 30, and May 1.

Medical Society of the State of Washington, Seattle, May 6, 7 and 8.

Missouri State Medical Association, Excelsior Springs, May 12, 13, and 14.

Indiana State Medical Society, Indianapolis, May 13, 14 and 15.

Kansas Medical Society, Wichita, May 13, 14, 15 and 16.

Illinois State Medical Society, Springfield, May 19, 20 and 21.

West Virginia State Medical Society, Fairmont, May 20, 21 and 22.

North Carolina State Medical Society, Asheville, May 26, 27 and 28.

Connecticut Medical Society, Hartford, May 27, 28 and 29.

Kentucky State Medical Society, Lexingtom, May (date to be fixed).

Nebraska State Medical Society, Lincoln, May or June (date to be fixed).

Pennsylvania State Medical Society, Reading, June 2, 3, 4 and 5.

State Medical Society of Wisconsin, Madison, June 3, 4 and 5.

Delaware State Medical Society, Rehoboth, June 9 and 10.

Maine Medical Association, Portland, June 9, 10 and 11.

Massachusetts Medical Society, Boston, June 9 and 10.

South Dakota State Medical Society, Chamberlin, June 10, 11 and 12.

Rhode Island Medical Society, Providence, June 11 and 12.

Michigan State Medical Society, Saginaw, June 11 and 12.

New Hampshire Medical Society (centennial), Concord, June 15 and 16.

Colorado State Medical Society, Denver, June 16 and 17.

Ohio State Medical Society, Put-in Bay, June 17, 18 and 19.

Minnesota State Medical Society, Minneapolis, June 18, 19 and 20.

Medical Society of New Jersey, Long Branch, June 23 and 24.

Vermont State Medical Society, Burlington, October 15, and 16.

Mississippi Valley Medical Association, St. Louis, October 14, 15 and 16.

Tri State Medical Association of Tennessee, Alabama and Georgia, Chattanooga, October (date to be fixed).

Tri-State Medical Association of Mississippi, Arkansas and Tennessee (date and place to be fixed).

Medical Society of Virginia, Lynchburg, October 27, 28 and 29 (subject to change).

New York State Medical Association, New York, October 28, 29 and 30.

Louisiana State Medical Society (place and date to be determined).

National Associations.

American Academy of Medicine, Washington, May 2 and 4.

American Medical Association, Washington, May 5 6, 7 and 9.

National Association of Railway Surgeons, Buffalo, May 7, 8 and 8.

American Gynæcological Society, Washington, September, 15, 16 and 17.

American Orthopædic Association, Washington, September 15, 16 and 17.

American Association of Andrology and Syphilology, Washington, September 22, 23 and 24.

Congress of American Physicians and Surgeons, Washington, September 22, 23, 24 and 25; in connection with this congress will be held the meetings of the American Climatological Association, American Ophthalmological Society, American Otological Society and American Neurogical Association.

American Dermatological Association, Washington, September 22, 23, 24 and 25.

American Surgical Association, Washington, September 22, 23, 24 and 25.

American Laryngological Association, Washington, September 23, 24 and 25.

American Physiological Society, Washington, September 25 and 26.

American Pædiatric Society, Washington, September (date to be fixed).

Southern Surgical and Gynæcological Association, Richmond, November 10, 11 and 12.

American Association for the Study and Cure of Inebriety, New York, November 12.

American Public Health Association, Kansas City, November (date to be fixed).

American Association of Obstetricians and Gynæcologists (date and place to be fixed).—*N. Y. Med. Jour.*

SELECTIONS.

LIFE-SAVING METHODS IN STILL-BIRTHS.

BY W. T. LUSK, M.D., NEW YORK.

Condensed from paper read at New York Academy of Medicine.

The chief object of the paper is to impress the necessity of persistent and intelligent application of known methods of procedure, such as clearing the respiratory passages of mucus, introducing air into the lungs by catheter, Sylvester's or Schultz' methods, aiding circulation by Schultz' method especially, and stimulating the respiratory center by the means just mentioned, and also by the application alternately of warm and cold water. If these well-known means are intelligently used almost hopeless cases might finally be saved, while by their misuse life has sometimes been needlessly sacrificed. The following illustrative case of successful efforts to save a still-birth was presented: The child's head was in the pelvis, but for the past two hours had made no progress. Extraction of the head by the forceps was easily accomplished. The cord was tight around the neck. This was divided by the scissors but when the child was extracted respiration had ceased; it was in a state of asphyxia. It was placed upon a table wrapped in warm cloths. The mucus was expelled from the posterior fauces. A No. 8 English catheter was passed into the trachea, and mucus was removed by suction. The quantity of the mucus in the bronchial tubes was large, and the catheter had to be introduced many times. Direct inflation was then practiced. In ten minutes the heart movements were observed, but they ceased again, and the steps already mentioned had to be repeated. But by perseverance in the treatment a little color was at last observed on the surface of the child. It was then immersed in warm water, lifted out, and cool water sprinkled on the epigastrium. Schultz' method was then practiced, followed by Sylvester's. In employing the latter it was necessary to pull the tongue forward and depress the base. It was not until nearly three hours of constant use of warm baths and cold sprinkling of the surface, alternate resort to Schultz' and Sylvester's methods that respiratory movements were finally established. The next day the child had cramps, but with constant medical attention these ceased after twenty-four hours. It was now in robust health and the joy of a family.

It is known that during the period of gestation the child remains in a state of apnœa, the respiratory function being performed by the placenta. As soon as the child is born in normal cases the thorax expands, the diaphragm contracts and pulmonary respiration is established. The premature establishment of pulmonary respiration while the child is still in the passages is followed by asphyxia and is the usual cause of still-births. Experiments on animals has shown that if, during uterine gestation, placental circulation be suspended the accumulation of certain materials in the blood is capable of exciting the respiratory center in the medulla oblongata without the aid of peripheral stimuli, while the latter are capable of exciting the respiratory act before the internal stimuli have increased sufficiently to induce independent action.

The conditions which prevail in asphyxia are somewhat different. When the child breathes in utero (and in nearly all cases of asphyxia after birth it has breathed in utero), we might say that the intra-uterine respiration was due either to tetanic contractions of the uterus (which was not uncommon at a time when ergot has been given freely before detachment of the placenta), to premature death of the mother, or, most common of all, to pressure upon the cord. The amniotic fluid, meconium, epithelium, and mucus are drawn into the respiratory passages, first into the nose and throat, and, where the inspiration has been active, on down into the trachea and bronchi. There is at the same time increased tension upon the blood vessels and right side of the heart. As no air reaches the lungs the medulla loses its irritability and the respirations are suspended. At the time respirations are suspended the vessels and the

heart are found enormously distended with blood.

In still-births the prognosis depends upon the degree of asphyxia. In milder cases the muscular tone is preserved, the head does not drop, the skin is dusky red or cyanotic, the conjunctivæ are congested, the umbilical vessels distended, reflex movements can be excited by irritation, etc. In these cases respiration often returns. In more advanced cases the head drops, there is loss of muscular tone, the heart-beats are feeble and infrequent, the umbilical vessels nearly empty, the cutaneous circulation has disappeared, the surface pale and cold, if respirations occur they are very feeble, and are not associated with movements of the muscles of the face. The first sign of recovery is refilling of the cutaneous capillaries and regaining of muscular tonicity.

The indications in all cases are to clear out the air-passages, restore the irritability of the medulla, increase the force of the heart contractions, relieve the plethora of the heart and blood-channels, expand the thorax. Where muscular tonicity is yet present these conditions are easily fulfilled. But long-continued and careful resort to methods already suggested is called for in the second class of cases.

Schultz' method is as follows: With the infant's back toward him, the operator places his thumbs upon the head, the index fingers in the arm pits, the hands diagonally across the back, the child's body hanging. Thus pulling up on the thoracic muscles, the upper ribs are drawn upward while the attachments of the abdominal muscles draw the lower ribs downward,the diaphragm descends, and in this way the cavity of the chest is expanded to the greatest degree, and inspiration is favored. Then by extending the hands horizontally, and giving a light turn forward and upward, bending the child forward, the abdominal viscera pushed up the diaphragm, the ribs are brought in close contact with one another, and the most efficient form of expiration is produced. There is, perhaps, no other way in which the mucosities in the lungs can be so efficiently expelled. In order to completely ventilate the lungs, the child is swung over between the hands a few turns before being laid away. But the greatest advantage is derived from the manner in which the congested heart cavities and vessels of the thorax are unloaded by these movements. Where there is deep asphyxia, all movements to restore the child should involve a minimum degree as a disturbance, otherwise the heart will cease to act, and all signs of life become extinct.

ARREST OF EVOLUTION VERSUS MATERNAL IMPRESSIONS.

Many of the readers of the *Age* have manifested considerable interest in the cases of supposed maternal impressions not infrequently reported in these columns.

An article contributed by Arch. Dixon, M.D., after a very thorough review of the literature of this interesting subject, states his inferences as follows:

That in twins with a single chorion or anastomosis of placental vessels, one fœtus may become perfectly formed while the other becomes monstrous.

That the development of the abnormality in such cases depends on local anatomical causes, and is governed by definite laws.

That every known form of malformation in the human race has its analogue in the lower animals, birds, fishes, and reptiles.

That arrest of development at any of the stages of embryonic life results, in part or in whole, in a permanent embryo of the stage at which the arrest took place.

From the consideration of all these facts, the subject is narrowed down to the following questions, viz:

Can the mother's mind produce the diseases of the uterus or its membranes which result in false bands or placental adhesions, which cause amputations and other deformities?

Can such impressions cause the umbilical cord to encircle and amputate a limb, or cause the death of the fœtus?

Can such impressions reach and act upon the newly-impregnated ovum so as to cause the double cicatricula to approach each other so closely as to result in union and double monsters?

That during the embryonic existence certain parts may be hindered or arrested in their development, while the other organs not directly connected with them may continue their evolution and become fully developed.

That any agency causing arrest of development of any portion of the fœtus must necessarily operate prior to the evolution of the part.

That the cause of the arrested development may be local or general, as injuries to mother's abdomen, diseases of the uterus or its membranes, hereditary transmission of deformity.

That excessive development of parts of the fœtus may obtain, resulting in nævi, aneurysms by anastomosis, supernumerary fingers and toes, etc.

That intra-uterine amputations are the result of amniotic bands, placental adhesions, fracture, or from constriction by a loop of the umbilical cord.

That amniotic bands or placental adhesions result from inflammation of the uterus, its decidua, or inflammatory diseases of the fœtus.

That the false membranes causing these amputations may be afterward absorbed, as also the amputated extremity.

That so-called double monsters are the result of the development of a double cicatricula on the blastodermic membrane of a single ovum.

That twins with a common chorion also result from the development of a double cicatricula an the blastodermic membrane of a single ovum.

That in either case there is always unity of sex.

That the nearness of the primitive traces to each other determines whether the impregnation will result in separate twins or a double monster.

Is it possible for maternal influence to destroy or de-

form one fœtus *in utero*, while another enclosed in the same membranes is uninjured?

A large per cent. of congenital deformities being shown to arise from local and other causes which can have no connection with maternal influences, it is improbable that at another time exactly the same deformity is produced by maternal impressions?

It is reasonable that an intra-uterine amputation will be caused in one case by an amniotic band, while in another it may be caused by maternal impression?

When it is remembered that no nervous connection exists between the embryo and the mother; that there is no distinct blood communication; that the mother's mind can have no influence in causing pathological conditions which have been shown to be the cause of the malformation; that during the first week of fœtal life the ovum is surrounded by anatomical conditions precluding maternal influence—whereas it has been shown that the vast majority of malformations have their origin in that period of embryonic life in which the ovum is still homogeneous blastema—when all these facts are considered, can any one believe that the mother's mind can change the conformation of the fœtus *in utero?*

If a man choose to maintain that a fossil oyster shell, in spite of its correspondence down to the very minutest particular with that of an oyster fresh taken from the sea, was never tenanted by a living oyster, but is a mineral concretion, there is no demonstrating his error. All that can be done is to show him that by a parity of reasoning he is bound to admit that a heap of oyster shells outside a fishmonger's door may also be sports of Nature, and that a mutton bone in a dust bin may have had the like origin.—*Med. Age.*

ACUTE PLEURISY AND ACUTE RHEUMATISM.

In 1883 Aufrecht drew attention to the decided results he had obtained in the treatment of acute pleurisy with the salicylates. Recent writers, notably Tetz (in the *Therapeutische Monatshefte*, No. 7, 1890), have confirmed his observations. We must allow that the title of a remedy to cure acute pleurisy must be very well substantiated. Acute pleurisies have a way of stopping short without treatment, of beginning with a fierce pain which suddenly abates, and of suddenly going on into the stage of extensive effusion with very little warning pain at all. Nevertheless, the successful results of the administration of salicylates in acute pleurisy, as recorded by these writers, are sufficient to raise in our minds the question as to whether acute rheumatism and acute pleurisy are not the same disease. Long ago Mr. Hilton, in his admirable lectures on "Rest and Pain," pointed out the resemblance between the pleura and pericardium and the joints. The pleural cavity represents a huge joint constantly in motion. It has the two surfaces covered by serous membrane and gliding smoothly upon each other by the aid of a lubricating fluid. And Mr. Hilton went on to apply his law of associatied muscular action, nerve-supply, and function to the pleura, showing how, when inflammation took place, the nerves of the pleura that were directly in communication with those supplying the intercostal muscles called for cessation of movement, and how the pain felt in the skin over the inflamed area was the agent by which this needed rest was obtained. Practically the same thing occurs in the joint that is inflamed and painful from acute rheumatism. Probably the resemblance between inflammation of a serous membrane and that of a joint would be more striking were the conditions exactly similar. But in the case of the serous membrane complete rest of the opposed surfaces cannot be obtained. The lungs cannot cease taking in air, and the heart cannot stop beating. Probably this accounts for the more fibrinous and adhesive character of the effusion, a further effort of nature to secure rest. In the case of the joint immediate rest is secured, and the effusion is not adhesive in ordinary cases.

The clinical features of acute rheumatism point to a common origin with pleurisy, if not to a practical identity. Many cases of acute articular rheumatism are complicated with effusion into the serous membranes. We say complicated, but we mean really that the pleural joint or the pericardial joint has been attacked as well as the wrist-joint or the elbow-joint. And pleural effusions are of much more frequent occurrence in the course of rheumatism than is commonly supposed. In the ordinary run of cases of acute rheumatism, the joints are so very painful that an examination of the bases of the lungs is not quite practicable, and, moreover, there are many practitioners who do not injure themselves with overzeal in the clinical examination of patients, particularly after a good working diagnosis has once been made out. We are satisfied that, if pleural effusions in rheumatism were more frequently looked for, they would be oftener found, and those who found them would be more disposed to regard rheumatism as a general attack on all the joints, including the serous membranes.

The general tendency to look with suspicion upon "exposure to cold" as a cause for so many diseases, to regard chilliness as an effect consequent upon the poisoning of the system by some external agent, rather than as a cause of disease, makes us sceptical as to whether such a thing as *pleuritis a frigore* exists. Is it not more rational to regard it as being due to some inherent tendency in the individual to inflammation of an arthritic form, and to infer that, when pleurisy occurs alone, it simply means that only one joint is affected, or perhaps that the main attack has been upon one joint, the others escaping lightly? The frequent occurrence of pleurisy without effusion into other joint cavities might arise from the fact that into the pleura a quantity of fluid may be effused rapidly, while when the joints are the main points of attack but little can make its way into them. To borrow an old expression, the *materies morbi* readily leaves the blood to fill up the pleural cavity, but, attempting to pour itself into a joint, it meets with

resistance and seeks an outlet elsewhere. The effect of the salicyclates, so well marked in rheumatism, ought to be equally good in this disease, and we trust that many observations will be made in this interesting subject.—*New York Medical Journal*, November 1, 1890.

SOME OBJECTIONS TO COCAINE IN GENITO-URINARY SURGERY.

Cocaine is of almost universal application in such operations as circumcision, urethrotomy, meatotomy, and usually is used with complete success as an anæsthetic. There are, however, some disadvantages following the use of the drug, and attention has been called to these objections in a paper by Dr. Bissell, published in the *Med. Rec.* for November 1, 1890.

Since cocaine has been in use it is not uncommon to find, after an internal urethrotomy, one or two pieces of mucous membrane clinging to the urethrotome. They are usually found in the angle between the dilating bars and the short cross-bars.

In these operations the Otis urethrotome—an instrument which is very nearly perfect—is always used, and used with the utmost care. After the cutting, the bars are only closed sufficiently to admit of its withdrawal. In about one-quarter of all the cases there was found caught in the instrument one or more pieces of membrane. In some cases the portion torn out was of considerable size. In a recent operation it was over half an inch long and nearly a quarter of an inch at its widest point.

Where ether is used in the internal operation with perineal section this accident is not noticed. In order to be still more certain that the cocaine caused the trouble, Dr. Bissell made applications of cocaine to normal urethræ, and into urethræ with large caliber strictures, as if about to perform internal urethrotomy, waited the usual time for it to absorb, and then, through the endoccope, observed the condition of the urethral wall. There was a little more difficulty than was natural in entering the proper-sized tube. The mucous membrane was blue and congested, and pointed into the opening of the tube. In the pathological urethræ these appearances were most remarked.

This narrowing of the canal and fullness of the mucous membrane would account for the frequency with which the latter is caught and torn away by the smallest closing of the bars of the instrument. Future stricture or permanent contraction of the penis will be a very natural result of this laceration. Hæmorrhage after the operation is another disadvantage of cocaine. Bleeding during the first night is more likely to occur after cocaine anæsthesia than after ether or chloroform, as can be obtained in cases of external section. This hæmorrhage is not of much importance in hospitals, or where a competent nurse is in charge; but when the care of the patient is left, as it often has to be, to a lay friend, it may be a very serious matter.

In circumcision, cocaine rarely gives trouble during the operation. If the solution is injected too close to the line of the cut, the swelling it causes may obscure the edges and leave a ragged and irregular line of union.

The extravasation of blood, which is almost unavoidable where the cocaine is injected into the subcutaneous tissue, is objectionable. In some cases superficial sloughing of localized points may result from this extravasation and make the healing slow and troublesome.

A very serious objection to cocaine in circumcisions is in children or in very nervous patients. The sight of the instruments, the dressings, the pain of the hypodermic punctures, and feeling and hearing the cutting and sewing up of the wound will cause severe shock in a delicate and sensitive child, and may frighten him into hysterics or even convulsions.

Chloroform is so easily given, and so harmless in children under ten years, that it or ether ought to be used in preference. Idiosyncrasy may account for certain cases in which the drug, however skillfully applied, does not completely anæsthetize.

Other cases occur in which the tissues, owing to pathological changes, do not absorb the solution rapidly enough, or sufficiently, in the quantity it is safe to use, to cause complete freedom from pain.

Cocaine-posioning is always possible, even with moderate quantities of the drug.—*Ther. Gaz.*

SOME OBSERVATIONS ON BONE AND SKIN GRAFTING.

The subject of a paper before the New York State Medical Association, by Dr. B. M. Ricketts:

"Grafting or dermepenthesis in the vegetable kingdom had been developed to such an extent that there was hardly any limit as to what could be done in the way of repair and production, beauty and financial gain being the greatest desiderata. While the results of grafting animal tissue were less gratifying than those of the vegetable tissue, much had been done to convince us that the limit was far beyond anything yet attained. Of the many questions that arose relative to the subject of bone and skin grafting, there were three most prominent; namely:

1. When and how should skin be grafted upon raw surfaces caused by injury or by the removal of malignant or nonmalignant growths.
2. How and when might bones be restored?
3. Should fragments of normal bone be permanently removed except in case of amputation? The author limited the first question to the cases where the edges of the resulting wound could not be immediately coapted, coaptation being given preference under all circumstances! In the second class of cases, he included those in which the restoration of the bone of the hands, feet, arm, or legs had been removed by trauma or surgical interference without amputation. Bone grafting or

osteopenthesis, while not so far advanced, was subject to the same successes as skin grafting. Enough had already been done to show that its confines were not narrow by any means. The third question, bone fragments in either compound or compound comminuted fractures, where a bone was crushed or broken into two or more pieces, the greatest care should be taken to replace the fragments and to offer every opportunity for their union, that its strength and original shape might be preserved. That this might be more certain all clots and foreign matter should be cleared away, and all shreds of tissue removed from between the fragments which should be immediately restored to their proper places. In some cases, as in the long bones, the fragments might be firmly brought together with silver wires which could afterwards be removed. The author looked upon exploratory incisions in cases where the conditions of the bone could not be determined, as justifiable, and as being the only means of knowing the exact condition; clean surgery being the safeguard. A number of specimens of bone-wiring in the dog were then exhibited."—*Boston Med. and Surg. Jour.*

THE NUMBER OF SITTINGS IN LITHOTRITY.

Under this title Professor Guyon (*Annales des Malad. des Organes Genito-urinaires*, December, 1890) describes a class of cases in which he has found it advisable to empty the bladder in a series of sittings. He begins by explaining that he has adopted *in toto* Bigelow's views and the plan of treatment which is associated with his name for all ordinary cases where the bladder wall is healthy and the calculus a hard one, but he has found that those patients whose bladders contain phosphatic calculi do not yield such good results by Bigelow's plan as by a series of sittings oft repeated. There are several reasons for this. The bladder itself in these cases is very irritable, and resents the prolonged operation which is necessary for its complete evacuation, whilst its loculi and rugæ render the task of finding all the calculi a most difficult if not an impossible one. Added to this, such bladders are always of large capacity, and often non-contractile, or only contract with difficulty, so that the fragments are not readily washed out from all their various lurking places. It must, Guyon adds, be borne in mind—and he quotes some experiments to prove his statement—that the evacuation does not exercise much, if any, attraction for fragments more than an inch to an inch and a half from its eye, so that in these large bladders fragments are very likely to be left behind. In further support of his statements M. Guyon refers to the case of an old man in whom after the removal of considerable masses of calculous matter he found a few days later at a second sitting another large calculus which he had left behind quite unsuspected on the first occasion. A case of this kind is the more perplexing, as the cystitis from which such patients suffer is always greatly ameliorated by the first operation, thus leading the patient and the surgeon, if he is unsuspecting, to imagine that a complete cure has been effected. This point, as Guyon remarks, has been referred to by many surgeons who have had great experience in these cases, and they have drawn attention to the fact that, in proportion as the bladder is emptied of its calculous contents, the severe symptoms grow less and less. Indeed, it was this very experience that led many surgeons to be at first loth to accept Bigelow's plan of treatment. In some instances which he quotes Guyon shows that the class of patients to which he refers even do better when treated as out-patients by frequent small crushings than when, with the additional security of bed and hospital treatment, the bladder is completely emptied at one sitting.—*Br. Med. Jour.*

CEREBRAL CONTUSION.

At the recent meeting of the New York Medical Association, Dr. Charles Phelps read a paper on this subject (*Medical Record*, Nov. 1, 1890). The brain contusion might take place at the seat of external injury, or on the opposite side, or somewhere between. Contusion by contrecoup had received little attention in medical literature since the publication of Holmes' "Surgery." That it was important and frequent he had been enabled to demonstrate by several post-mortem specimens, as well as by subjects. In one specimen the blow had caused complete separation at the temporal, sphenoidal, and parietal juncture on one side, yet on that side the brain showed no injury; while at a corresponding point on the opposite side was an extensive contusion.

There might be no external sign of injury where contusions of the brain existed, producing symptoms mistaken for alcoholism. He cited such a case. The mistake was commonly made by the police of regarding patients as under the influence of alcohol when suffering from cerebral contusion. The two conditions were likely also to co-exist. In a case at St. Vincent's in 1880, a man died eighteen days after injury to the occipital region; autopsy showed an abscess in the cerebrum some ways distant and interior. An early diagnosis in such cases was often obscure, if not impossible. There had been cases of severe contusion without concussion. He gave the following conclusions:

1. Cerebral contusion may be either limited, diffuse, or attended by hæmorrhage upon the surface of the brain.
2. The superficial hæmorrhagic form may cause early death by compression.
3. The limited or diffuse form may cause early death through consecutive general hyperæmia.
4. The symptoms then resemble those of alcoholic intoxication, for which it is usually mistaken.
5. The limited or diffuse forms may cause death at a later period by the formation of abscess.
6. Contusion of the brain, with the possible exception of cranial fracture, is in general the most frequent cause of death in injuries of the head as a class.—*Ther. Gazette.*

WHY send your consumptive patients away to die in some strange land? Why not make one more rational effort to save them. Read the advertisement of the McArthur Hypophosphite Co., on title page and give their preparation a faithful, thorough trial.

AFTER a personal and critical inspection of Dr. Marshall's combined hand and buggy case and saddle bags, we unhesitatingly pronounce it the most perfect, convenient and durable that we have ever seen. See cut and description of it in our advertising colums, and write to Dr. W. Scott Marshall, Centralia, Ill., for prices and circulars.

THE new vestibule trains running between St. Louis and Louisville, via the Louisville, Evansville & St. Louis "Air Line," are satisfying a long felt want of the traveling public. You can leave St. Louis at 8:20 A. M. or 8:25 P. M. every day in the week, and, having meals served en route in the dining car, avoid all discomfort of taking lunch or eating at lunch rooms. The Air Line ticket office is located at 103 N. Broadway.

ETIOLOGY OF TABES DORSALIS.—Bernhardt (*Neurologisches Centralblatt*, December 1, 1890) records a case of locomotor ataxy in a young woman, aged 28 years. She had not had syphilis. She became pregnant, and the pains were so severe that artificial labor was induced; this diminished the pain but not the difficulty of gait. The ataxy of her legs was very well shown when she lay down and tried to cross the limbs. The knee-jerks were absent. When the eyes were shut she could not tell the position of her limbs, but the pupillary reflex was normal. The point of great interest about this woman is that for some years she had been working a pedal sewing machine from early morning till midnight. Bernhardt quotes two cases recorded by Guelliot, in which locomotor ataxy supervened upon working with a sewing machine.—*Br. Med. Jour.*

AN OPERATION FOR PROMINENT EARS.—Undue prominence and turning forwards of the pinna, is a very unsightly deformity that is only with difficulty overcome by the methods usually employed. Dr. Ely, some years ago, treated a case of this kind by removal of an oval vertical segment of the pinna. But Dr. W. W. Keen, of Philadelphia, has improved upon this by removing an oval piece of the skin of the back of the ear, and cutting a vertical notch only in the cartilage. The skin wound is then closed with fine sutures, when a bend occurs in the pinna where the cartilage has been notched, and so the prominence of the ear is remedied. The advantage of this plan is, that it leaves the ear without any scar in front—without any visible scar, in fact. The case in which Dr. Keen did this operation is recorded, and the patient figured in the Transactions of the Philadelphia County Medical Society. The operation in that case was eminently successful.

USEFUL FORMULÆ.

REMEDIES FOR SKIN DISEASES.—
The *British Journal of Dermatology*, November, 1890, contains the following valuable formulæ.

ARISTOL SOLUTION IN ETHER.—
℞ Aristol, - - - - - 5 parts.
Ether, - - - - - 50 "

ARISTOL COLLODION.—
℞ Aristol, - - - - - 2 parts.
Collodion, - - - - 18 "

ARISTOL POMADE.—
℞ Aristol, - - - - - 5 parts.
Vaseline, - - - - 15 "
Lanoline, - - - - 30 "

UNNA'S GELATINE DRESSING.—
℞ Oxide of zinc and
pure gelatine, - each 10 parts.
Glycerine and dist. water, - " 40 "

FOR SYCOSIS.—
℞ Iodoform, - - - - 4 parts.
Lanoline, - - - - 30 "
Leache recommends this ointment to be applied every night, and to be washed off in the morning with hot water.

FOR WARTS.—
℞ Corrosive sublimate, - - 1 part.
Flexible collodion, - - - 30 "
To be applied once daily upon the wart and around its base.

FOR PERSPIRING HANDS.—
℞ Eau de cologne, - - 120 parts.
Tinct. of belladonna, - - 15 "
To be used as a lotion.

FOR PEDICULI PUBIS.—Brocq uses a lotion composed of
℞ Vinegar, - - - - 500 parts.
Sublimate, - - - - 1 part.
This application is said not only to kill the pediculi, but also to remove the nits.

FOR ECZEMA.—
℞ Oleate of cocaine, - - 1–2 parts.
Lanolin, - - - - 40 "
Olive oil, - - - - 10 "
This is recommended by Lustgarten for the treatment of eczema of the anus and genitals. Two applications daily, followed by the use of some absorbent dusting powder, hot hip-baths and soap. For the relief of pruritus he uses suppositories containing the oleate of cocaine.

ORIGINAL ARTICLES.

ETIOLOGY, PATHOLOGY AND TREATMENT OF FURUNCULOSIS.

BY J. G. TAPPER, M.D., ELGIN, ILL.

With all the advancement that has been achieved in the science of medicine but little progress has been made in the ætiology, pathology and treatment of furunculus, a disease which has caused no little torment and very much swearing in this world.

Upon searching the literature for light on this subject, one is struck with the meagerness of its clinical history and studied investigation. In nearly every instance, one is confronted with the glaring fact that it makes its appearance by some unknown or peculiar condition of the system. That it seemingly represents either a depraved or an exalted condition of the blood. The student finds little comfort or encouragement from a therapeutical point of view. Vague and indefinite rules are given for rapidly building up your patient, if anæmic and run down, by giving iron and bitter tonics; while on the other hand if we had to deal with the opposite, plethora, deplete and push as far as the patient will tolerate the sulphur and potassium compounds. Most authors conclude by offering us words of encouragement, by pointing out that the majority of cases are little influenced by any known line of treatment. I feel confident that, if in all candor you have faithfully followed the history of all the cases you have treated, by the staid old lines of irrational therapeutics, you, too, can vouchsafe the same answer. It is safe to assume that only unsatisfactory results have been attained in the management of these cases. If this proposition holds true, it must inevitably lead to one of two conclusions; either that our ætiology and pathology are radically wrong and consequently our therapeutics do not apply; or, if we are right in the first, our line of medication is faulty, as the manifest results are so insignificant.

I never felt satisfied with the teachings thus advanced, for here we had to deal with a very peculiar condition, one in which the systemic disturbance was not at all in proportion to the local pain and attending inflammatory action present. I was further impressed with the fact, on more careful study, of their appearance in groups, that rarely would the patient escape a second, third, fourth or even more, outbursts, if uninfluenced by anything but the routine treatment. The others would manifest themselves in the immediate neighborhood, soon after the first had been brought to a head and had poured its contents over the surface. This can be verified in the majority of constantly recurring examples. It is true, you may find them disseminate and scattered over a broad surface, but close investigation will demonstrate the correctness of the statement I make, that they will nevertheless be found in groups. Their evolution will also describe a cycle of time. The proofs have been so convincing, as the number of cases has multiplied, that the conclusion has forced itself upon me, that we have here a typical local septic infection. It is in perfect harmony with all the real advancement made in the field of medicine and surgery.

In support of my position, I select several examples from my case-book. I am fully aware they lack the positiveness of laboratory research, the specific microbe not having been isolated and cultivated; yet from a clinical point of view they clearly confirm the specific character of the disease.

Mr. K., æt. 37. For the past 12 years has been sorely afflicted with a periodical outbreak of boils upon his body. This would occur at least two or three times every year. Frequently he was confined to his bed for several weeks at a time, causing him a great deal of acute suffering, besides entailing considerable financial loss. During all this time he had been liberally dealt with in the line of potions and powders for "cleansing the blood." As he expressed himself, if there was anything in the Pharmocopœia that he had not taken he would like to see how it would look and taste.

Upon close inquiry I found that in nearly every instance the first elective point, with a few possible exceptions, for their appearance, was over the prominence of the seventh cervical vertebra, and from this point they gradually spread downwards and outwards, toward either shoulder, until this region was one mass of scars.

Why was this the focus for these continued outbreaks? Follow me closely and explanation becomes simple and easy. When about 20 he injured his left knee, which confined him to bed for a year. From the history given, I conclude he suffered with a suppurative osteo-myelitis, ending in necrosis of the patella. This has continued to discharge pus at intervals ever since. I also elicited the fact that on retiring he had acquired the habit of picking off the crusts that would form during the day and repeat the process in the morning with his finger and thumb nails. Previous to the appearance of the discharge from the patella, he had never been subject to abcesses of any kinds. Further inquiry elicited the information that he had always been in the habit of wearing a closely-fitting standing collar, which at times gave him considerable trouble in adjusting. The conclusion forced itself upon me the more I thought about his trouble, that here we had to deal, not with systemic disease, as all who before me had diagnosed, but a purely local septic infection, carried by his finger nails, from this suppurative knee center. That in the act of buttoning his collar, he had caused an abrasion of the skin, or had in so doing deposited the septic matter within a hair follicle or a sudoriferous gland. From this point of infection the local trouble rapidly spread to the surrounding tissue. By close inspection one could easily determine that the hair follicle was the focal point of septic infection. By the aid of a magni-

fying glass this could be plainly seen. To demonstrate the correctness of my diagnosis, I at once opened every abscess and rendered the entire region completely aseptic and applied a cotton collodion dressing, and from this time the gentleman had no further trouble. To more thoroughly emphasize the soundness of my position, I urged an immediate operation for the necrosed patella. This he refused to have done, but promised faithfully to carry out any therapeutic measure I would suggest in order to prevent a recurrence of this affliction. With this object in view I enjoined absolute cleanliness of the fistula by the free use of soft soap and water; to be followed by a dressing of bichloride solution. Over a year has now elapsed since this plan of treatment was inaugurated and he has had no further outbreak.

I do not lose sight of the fact that possibly no return might have occurred had he permitted it to continue without treatment of any kind, but this is hardly probable from his past history.

I was consulted some months ago by a lady of intelligence in regard to her children, who had been greatly afflicted with a constant succession of boils. These had persisted in spite of a thorough trial of all the more popular blood medicines, including sulphur and molasses.

Upon examining closely into the history of the disease, I found that it made its first appearance on the fingers of their little boy. From the hands it gradually extended over the greater portion of the body. In a short time it appeared almost simultaneously upon his two little sisters. Their bodies were covered with a great many superficial,and a few deeper-seated abscesses, but more especially about the arms and hands. Their general health seemed to be of the very best. There was no palpable error in diet that could be ascertained. By pushing my inquiries still further I soon learned that the boy had had for a companion a boy who, the mother now recalled, had open sores upon his hands. At the time she had given little heed to this occurrence, and even now I could scarcely make her believe there was anything contagious about the trouble. I treated these cases in precisely the same way as I did the first and with equally good results. Believing, as I did, in the absolutely septic origin of the disease, I discarded wholly the constitutional line of treatment. I admit frankly the incompleteness of my tests, but it must be conceded that the very satisfactory results obtained by the surgical, rather than therapeutical, measures employed tend largely to sustain the position taken.

As a *resume*, I would formulate the following propositions:

1. I am firmly convinced that the large majority of cases met with in practice are primarily a local septic disease, and should be treated as such.

2. That in support of its constitutional origin, insufficient evidence has been adduced to further sustain so frail a theory.

3. That were it a diseased condition of the blood, remedial measures directed to this state would afford an improvement that would satisfy and justify this position.

4. That the large number of remedies constantly forced upon the public and urged upon the profession, by short-sighted clinical observers, speak unmistakably against this theory.

5. I believe that the disease is transmitted through an external agency and is propagated by a specific pyogenic microbe, which finds entrance by one of two methods: more frequently through a slight abrasion in the epidermis; more rarely through a hair follicle, or sweat gland.

6. When once it has found its proper pabulum upon which it thrives, new foci of infection do not, as a rule, occur until after rupture of the primary abscess. Where such is not the case, it is safe to assume that the others became infected from a common cause.

This theory pays its full tribute to the advancement made in medical science and accords to the disease an honorable position which we must at once respect.

That so regarding it, we can treat it with a positiveness and assurance which we totally lack when viewed in any other light.

By so doing, we command the respect and confidence of our patients and place ourselves above meddlesome medicine.

A REPORT OF EIGHT CASES OF LAPAROTOMY.

BY J. H. M'INTYRE, A.M., M.D., ST. LOUIS, MO.

Read before the Southwestern Missouri District Medical Society October, 1890.

Although it has fallen to my lot to have opened the abdominal cavity in a large number of instances, yet I feel that a brief report of these, my last cases occurring within the past year, may not be devoid of interest.

Mrs. D., æt. 38, presented herself at my office in the early part of April of last year, suffering considerable pain and inconvenience from a rapidly growing tumor in the abdomen, situated immediately to the right of the umbilicus. The growth was somewhat movable, and the size of a fœtal head.

She presented an anxious expression, suffered from insomnia, and was rapidly losing flesh. A short time previous to this interview, a council of several gentlemen had decided that her trouble was floating kidney, and had advised, and she had submitted to, tight bandaging with compresses, to keep the supposed floating kidney in place; this was worn for several days, until she rebelled on account of the pain which it occasioned.

As at that time, there was no suspicion of anything of a malignant nature, and as I was on the eve of my departure for a month's absence, and she evidently needed toning up, I left her in the care of my assistant, but advised removal of the growth by abdominal section,

immediately on my return home—which I may mention was hastened several days on account of news of her rapidly increasing unsatisfactory condition.

May 29, she was anæsthetized, and the abdomen opened in the linea alba, the incision extending from the umbilicus, to near the symphysis pubis. Upon passing my hand within the abdomen, over and around the tumor, I found extensive attachments. The ventral wound was extended three inches upward, and to the left of the umbilicus, and the growth turned out. It was attached to the mesentery, the intestines and the lower lobe of the liver by an intricate mass of adhesions, and was carcinomatous. Of course there was but one thing to be done, and that was to return it to the abdominal cavity and close the wound.

She rallied nicely from the operation, and much to my surprise the abdominal wound healed throughout nearly its whole extent by first intention, only a sinus remaining at the lower angle of the wound to give us trouble. I scarcely need say that she has since died.

On June 13, just fourteen days after my very unpleasant experience with the case above referred to, Mrs. A. E. A. æt. 32, who had long been a sufferer from ovarian irritation, with all its attendant ills, was placed on the table and both ovaries and the Fallopian tube of one side were removed through a two and a-quarter-inch incision in the linea alba. Each ovary was not only inflamed and enlarged, but one furnished more than a tablespoonful of pus. The reaction was prompt, and the wound healed by first intention, all stitches being out by the seventh day. The cure in this case is complete, the lady goes into society, does shopping and now superintends her household affairs, and is again the bright star in the beautiful and refined home over which she presides.

July 9. Mrs. R. C., æt. 29, and rather fleshy, though always pale, has been a sufferer from ovarian irritation since she was æt. 14. Her spine had been many times blistered, cupped and painted with iodine, croton-oil, tartar emetic etc. Her womb had been dilated—though for what real reason Heaven only knows. She had been sent to Colorado, to the Hot Springs of Arkansas, Eureka and many others, but to no advantage.

She was anæsthetized with bichloride of methyline used in a Junkers inhaler. An incision 2½ inches in extent was made in the linea alba, and both ovaries and both Fallopian tubes were removed. She also rallied well, the ventral wound healing by first intention. She walked out, a block away to the corner grocery, on the sixteenth day; she is now in the enjoyment of excellent health, and so far with the sexual instinct the same as before operation. In both these cases of Battey-Tait operation there has been no return of menstrual flow.

August 15, Mrs. S. G., æt. 44; an anæmic, bed ridden sufferer with an enormous sub-peritoneal fibroma. Bowels could not be moved even by powerful cathartics and rectal injections, oftener than once in twelve to sixteen days, when they would suddenly run off for two or three days. This condition was occasioned by mechanical pressure, which produced irritation and inflammation, and caused many adhesions. The growth was removed through an incision extending almost from the xyphoid cartilage to the symphysis pubis. While breaking up adhesions very gently with my finger, I had the misfortune to split the softened gut to the extent of two and a half inches; fæcal matter poured into the abdominal cavity, which was quickly cleansed by sponges squeezed out of a 1:2000 mercuric bichloride solution. Placing my finger in the rent, the tissues were so softened, that the tear extended at least another inch in extent, making three and a half in length. It was closed up with silk-worm gut, using the Lembert suture.

When the operation was completed she was almost moribund. About a dozen and a half of hypodermic syringefuls of brandy were thrown under the skin in the arms and legs, she was put to bed and her body and limbs surrounded by bottles of hot water. Reaction was obtained slowly but perfectly, and recovery was uneventful. A stitch-hole sinus gave the only real trouble, and did not close for over four weeks. The lady is now on a visit to her son in one of the Eastern States.

October 16, I received a letter by messenger from a medical gentleman urging me if possible to meet him, together with two others, in consultation, immediately on the arrival of the train. He said "my diagnosis is uterine tumor, probablyfibroid. She is suffering intensely with tenesmus of the bladder and rectum; something must be done early and I hope you will be able to come this evening."

I found the doctor's fears to be indeed well founded. A lady of culture and refinement surrounded by every evidence of luxury, but was in a semi-unconcious state, with a temperatureof 103°, suffering excruciating agony, which the most heroic doses of morphia only relieved by being frequently repeated. A tumor to all appearances hard and solid, protuded at the front of the abdomen, yet was jammed down in the pelvis, and its lower segment could be distinctly felt in the retro-uterine space.

Matters were indeed desperate and although abdominal section gave but a ray of hope, yet it was decided to give her this slender chance. It was done the next morning, and we found a suppurating tumor, broken down in its entirety, which sprang from the left ovary, and pus, pus, pus everywhere. The operation lasted fifty minutes; she rallied gradually, and with no nausea, but although the temperature came down to normal, she died of exhaustion, and previous septic infection, on the fifth day after the operation.

I. L., æt. 32, 6 ft. in hight, strong and muscular, member of a base ball club.

On the occasion of a game on a very hot day in the month of June, the patient suffered a sun stroke, and was prostrated almost to unconsciousness.

A large amount of ice, and iced water was applied to his head and abdomen, so much that eventually he was quite chilled. This was followed by an attack of peri-

tonitis, after which for several months, while he was up and going about, still he was not quite well, when he was suddenly and violently attacked with what was at first supposed to be another attack of peritonitis.

He was under the care of an intelligent and competent practitioner who soon recognised the trouble to be intestinal obstruction. He advised laparotomy, which brought me into the case.

I need not here speak of the weak, rapid pulse, the pinched, anxious expression of countenance, the dull outline of a tumor, or the tympanitic abdomen. Suffice it to say, that we opened the abdomen and found a large mass of small intestines matted and glued together, as the result of previous inflammations, together with a constricting band at the lower part of the ileum.

The constricting band in this locality was a surprise to me as I expected to find the trouble at the sigmoid flexure. The band broken up, the intestines were returned and the abdomen closed.

All present concurred in the prognosis, that on account of five or six feet of gut being almost in a condi tion of sphacelus, the patient would die within the space of three or four days, a matter in which we were not disappointed.

Mrs. R. O., æt. 25, was first a mother at the age of 19. Had been an invalid since the birth of her youngest child, now 4 years of age. Suffered from albuminuria; had "sinking spells," together with an enormous distention of the abdomen, for the relief of which she she sought, not the Pool of Siloam, but the healing and rejuvenating waters of Lebanon, where she came under the professional care of my friend, Dr. I. M. Billings of that place, who recognising her real condition, referred her to me for operation.

The Doctor arrived the next day, but I suggested to him, that on account of her unsatisfactory condition it might be well to postpone the operation for a few days (her temperature being 2° above normal), when he replied, "you may as well proceed with the operation, for you will never get her in better candition; only a short time ago her husband was sent for to come to Lebanon to see her die."

Accordingly the operation was performed the day after his arrival, May 25.

Our diagnosis was unilocular cyst of the left ovary. Circumference of the abdomen over the umbilicus was 39 inches.

Time of operation, one hour; weight of tumor 36 pounds; it was multilocular instead of unilocular as we had supposed.

There were extensive but not firm adhesions, which were abdominal rather than pelvic, the most troublesome being in the region of the liver. Pedicle was transfixed ligated and pocketed.

The ventral wound was closed with 16 silk-worm gut sutures. External dressings, antiseptic gauze, compresses and a flannel bandage.

Much to my surprise, I found her at 7 P. M. on the evening of the day of the operation with a temperature of 98° and no vomiting.

The temperature did not go above 100° until after the tenth day.

Ten sutures were removed on the seventh day, and the remaning six on the eighth, the wound having healed throughout by first intention.

On the evening of the tenth day the temperature suddenly went up to 102.5° and by the twenty-second, in spite of antipyretics, had reached 103° after which it steadily and rapidly declined to 98° within the space of five days.

I account for the above condition as follows: At the time of the sudden rise of temperture the skin assumed a yellow tinge, and within twenty-four hours had presented the dark, yellow hue of a typical case of jaundice, continuing until the twenty-second in spite of all the medication which had been used.

I now became convinced that the trouble was occasioned by occlusion, more or less complete, of the ductus communis choledocus, on account of contraction of the raw surfaces which had been produced in breaking up adhesions in its vicinity, and that my patient would die if not relieved. So I resorted to no very gentle massage, over this particular region, and with the most happy effect, for within 24 hours the skin and conjunctivæ had sensibly cleared up, and rapidly continued to do so until they had assumed their natural hue.

The temperature within the first 24 hours had fallen nearly 3°, and as I before stated, was normal by the end of the fifth. After which she went on to a rapid and satisfactory recovery.

Mrs. F. C., æt. 45. When in good health a large, fleshy woman. Mother of several children. About 4 years ago noticed some change in her menstruation, it being increased both in duration and quantity. At first she gave it little thought, as she supposed she was reach ing the climacteric.

Later on she noticed a small lump in the right ovarian region, together with an increase in the size of her abdomen.

Yet, as she expressed it, she thought she must be again pregnant "in spite of herself."

The abdomen continuing to enlarge, and the period of pregnancy having passed, she realized the possibility of abdominal tumor of some kind.

Her general health now began to fail. She lost flesh, suffered from indigestion, and had many and profuse uterine hæmorrhages, together with a rapidly increasing abdomen; and at the time that I first saw her, now about four weeks ago, the *facies ovariana* was well marked.

At the preliminary examination of this case, I was at first a little undecided, on account of the uterine hæmorrhages and the nodular and somewhat irregular outline of the abdomen, whether it was an enormous subperitoneal fibroma, or a multilocular cyst. I finally, however, decided that it was a multilocular cyst, and had the satisfaction of confirming my diagnosis at the operation.

This was done September 18, and a tumor of 30 pounds weight removed, which was partly colloid, partly solid,

but having many compartments; the solid part furnishing a most beautiful specimen.

The pedicle, which contained two unusually large vessels, was transfixed, ligated and dropped back into the abdomen.

Wound closed by silk-worm gut sutures, and antiseptic dressings applied. Time of work, 50 minutes. Some nausea, but no vomiting followed. Wound was inspected on the morning of sixth day, the wound having healed by first intention, without a drop of pus or a blush of inflammation. No rise of temperature at any time of over 3° above normal. Patient for several days past has been sitting up and going about her room, and is now asking for the day to be named upon which she can return to her home.

In all laparotomies I carry out the strictest antiseptic precautions, although I abandoned the spray five years ago, and I now get better results without it than I did with it. All instruments are placed in a large shallow photographer's dish containing a 1 to 40 carbolic acid solution, before and at the time of operation.

Twelve large, fine cup sponges are kept for this operation alone and are used in no others, and I give their cleansing and preparation my own personal attention.

After the method of the English and Scotch operators, I use veterinary needles in closing the ventral wound, and for suture material I have used the silk worm gut for the past ten years. The idea of its use I received from Geo. Granville Bantock, of London. It is prepared by taking the cocoons about the time they are ready to spin and steeping them in dilute acetic acid until they become a soft pulpy mass; they are then "drawn" like silver wire. It is very strong, round and smooth, and can easily be made aseptic, as it should be steeped for a few hours before being used in a solution of some kind, so that there may be no difficulty in tying it tightly. It is the ideal suture, not only in closing the ventral wound in laparotomy but also in lacerations of the cervix and perineum. To ligate bleeding points in the abdomen I use fine Japanese cable silk.

In all ovariotomies where adhesions exist, I find drainage of the peritoneal cavity to be a most important factor, conducing greatly to the success and safety of the operation. As ovariotomy is an American operation, so also is the suggestion of drainage of the peritoneal cavity of American origin, for in 1872-3 J. Marion Sims published his article in the *N. Y. Medical Journal* wherein he showed that death was occasioned in a large number of cases by the absorption of septic material from the peritoneal cavity, and that the usual fatal train of symptoms preceding death was checked by evacuating this highly irritating and offensive fluid. His plan was to puncture the cul de sac, introduce a tube behind the cervix, and drain the peritoneal cavity through the vagina. Now, while we admire his genius we find his method faulty, on account of the difficulty not only of keeping the tube pervious, but also of keeping it in position.

Kœberle was the first to employ a tube passed into Douglass' pouch through the lower angle of the ventral wound. His tube was made of glass, closed at its lower extremity, was round and pointed, and perforated throughout its entire length by a number of small holes, but it did not give entire satisfaction on account of the difficulty of removing the fluid through it. It admitted air too freely, and did not sufficiently confine the fluid, and blood clots or lymph could not pass through the small perforations. In 1876 he sent two of his tubes to Keith, of Edinboro, who soon found them to be inefficient, so he modified them, using a straight, round tube of glass left open at both ends, perforated by a number of small holes for only about an inch at the lower end, and having a "shoulder" near the upper end to prevent its slipping into the abdominal cavity. These tubes he made of various sizes as to length and diameter.

This is the tube which I have used with satisfaction; with it the peritoneal cavity can not only be drained, but also washed out very effectually.

Gentlemen, there are many details of interest in the management and after-treatment of laparotomies of which I would like to speak, but for fear I tax your patience, I will now thank you for your attention.

614 Olive St.

THE ABSORPTION OF DRUGS FROM OINTMENTS.—Luff (*Brit. Jour. of Derm.*, June, 1890) summarizes the results of his experiments on the absorption of drugs from ointments with the bladders of goats as follows: With vaseline and iodide of potassium exosmose commenced at the end of the first hour; with lard and iodide of potassium at the end of the ninth hour; with lanolin and iodide of potassium the result was *nil* up to the twenty-fourth hour. With vaseline and carbolic acid exosmose commenced at the end of two hours and three-quarters; with lard and carbolic acid at the end of seven hours; with lanolin and carbolic acid the result was *nil* at the twenty-fourth hour. With vaseline and resorcin exosmose commenced at the end of the tenth hour; with lard and resorcin at the end of the fifteenth hour; with lanolin and resorcin the result was *nil* at the twenty-fourth hour. Luff concludes that if it is desired to obtain the rapid absorption of medicaments in the circulation, it is better to use vaseline, and that for local therapeutic purposes pomades made with vaseline should be preferred. This latter substance causes the incorporated medicaments to keep for a much longer time.

PULMONARY EMPHYSEMA FROM OCCLUSION OF THE NARES.—Dr. Cervello (*Riforma Medica*, 1890) following out the observations of Sandmann, has experimented upon dogs, and has found that in healthy dogs, complete occlusion of the nares always produces pulmonary emphysema in a few days.—*Revue de Laryngologie.*

WEEKLY MEDICAL REVIEW.

BRANSFORD LEWIS, M.D., EDITOR. W. C. MARDORF, M.D., ASSOCIATE EDITOR.

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SUDDEN DEATH IN ABDOMINAL DISEASE.

The mechanism of sudden death in certain diseases of the abdomen, such as cirrhosis of the liver and carcinoma of the stomach, pancreas, and liver, is not only of great scientific interest, but is also of great importance from a medico-legal standpoint. Jacquemard gives the results of his observations in this little-studied field in *Loire Medicale* (*Allg. Med. Zt.—Med. Chir. Rundsch.*) The fatal issue is often spontaneous; at other times it follows closely on the heels of some relatively unimportant surgical procedure, such as capillary puncture of a cyst, paracentesis abdominis for ascites, etc. Nevertheless, our knowledge of the subject is up to the present very limited. Some authors attribute the result to fatty degeneration of the heart muscle, which becomes unequal for its work and suddenly becomes weak, death resulting from syncope. Other authors attempt to explain the occurrence by reflex action, the starting point of which is in some abdominal organ, and the consequence of which is sudden stoppage of the heart's action.

Observations of two cases occurring in the hospital of St. Etienne, however, in the words of Jacquemard, seem to shed an entirely new light upon this subject of sudden death in abdominal disease. The first case was that of a man æt. 45, who had a carcinoma of the lesser curvature of the stomach; the general condition of the patient was satisfactory, and cachexia was absent. With the exception of occasional attacks of palpitation there were no signs of a heart affection. The patient expired suddenly while going to stool. At the autopsy the tricuspid orifice was found much dilated, so that three fingers easily passed through. The external surface of the heart had a thin coat of adipose tissue, but the muscular structure itself appeared perfectly normal. The second case was one of tuberculosis with interstitial inflammation of the right kidney, and here, too, the general condition of the patient was very good. He died while asleep, after going through a few convulsive movements. The post-mortem revealed no lesions except those of the kidneys; even the lungs were wholly free from tubercular disease. The heart had appeared normal; the only symptoms it had given during life was an occasional attack of palpitation. At the post-mortem there were noticed signs of myocarditis, but the left half of the heart appeared to be in perfectly good condition.

The author does not believe that in these two cases the relatively slight affection of the heart was alone sufficient to bring about sudden death, and would attribute the result to an abdominal reflex action; the fibers of the solar plexus probably form part of the reflex arc. If in a person with a healthy heart a reflex impulse passes to the latter, its origin being in the solar plexus, it does not seem capable of causing dangerous results under ordinary conditions; it would seem, however, that if the heart is in any way and in the least degree affected, a reflex shock might, under analogous conditions, cause heart failure and death. It would also appear from the observations of the author in these cases that we must combine these two hypotheses, that of a heart affection and of a reflex action; the reflex impulse starts from the diseased abdominal organ, passes through the fibers of the sympathetic, and expends its force upon the heart to such an extent that it is no longer capable of functionating.

VAN DEEN'S BLOOD TEST AND VITALI'S PUS TEST.

Prof. E. von Brucke gives some valuable information concerning the detection of blood and pus in the urine, in the *Monatsh. f. Chemie* (*Med.-Chir. Rundschau*). He says that Van Deen's test is the most convenient one for discovering even the minutest quantities of blood, or hæmoglobin alone in the urine. It is made by adding to 5 or 6 c.cm. of urine about 1 c.cm. of oil of turpentine, shaking, and then adding 1 c.cm. of tincture of guaiacum. The mixture separates into two layers, between which a third clear layer appears, which becomes broader on shaking. If the quantity of blood is very small the mixture should be shaken for some little time and then allowed to stand. This test can be directly applied only when the urine is free from pus, for the latter will give the same result when blood is not present, as Vitali has shown. Brucke's investigations led him to the following conclusions: 1. Van Deen's reaction occurs with fresh guaiac tincture, but it is better to use an old tincture which has been exposed to air and diffuse light. On adding a cold prepared solution of gum acacia it should immediately turn to a plain and distinct blue color. 2. In testing, we should follow

Vitali's rule and first add some of the tincture to the urine, and see if a blue color results. If this does not occur, we can then carry out the test in its entirety. 3. If the tincture alone causes a blue color, filter the mixture through several layers of paper and add more guaiac tincture to the residue in the filter; if the result is of a blue color pus is present (Vitali's test for pus). This may be proven by microscopical examination. 4. The filtrate is also tested with a little tincture; if it does not turn blue we can finish the test for blood by adding oil of turpentine. If, however, the filtrate still turns blue it should be boiled and then rapidly cooled with cold water, after which the oil is added. 5. If blood is present the solution should clear within a minute or two; the blue color should not become visible until after ten minutes and then only gradually. 6. If after boiling the filtrate with tincture and adding more of the latter it still turns blue without the addition of the oil, we are led to one of two conclusions: either the urine contains some substance which is turned blue by the tincture and does not lose this property on boiling, or else the urine contains blood, and we find that we are working with a tincture which is turned blue by blood alone. We can exclude the latter result by testing the tincture with a little blood thinned with water. 7. Urine which changes to a blue color on the application of Van Deen's test, but fails to respond after boiling, contains neither blood, hæmoglobin, methæmoglobin, nor hæmatin.

Practical Disinfection.

In the *Hygienische Rundschau* is an article by Prof. E. von Esmarch, of Berlin, translated in the *British Medical Journal*, in which some very practical and important points in disinfection are given. The best method of disinfecting clothing and other articles which are not injured by moist heat is by steam, either circulating or under pressure; the former is just as efficient and is more easily attainable under ordinary circumstances. The following are the requisites for a perfect disinfecting apparatus: It should be close to the source of steam supply; the steam developed should be sufficient in quantity to fill the chamber and keep up the temperature for some length of time; to fill every crevice of the chamber the steam should enter above and pass out below. If possible the clothing already disinfected should not be allowed to come even in the neighborhood of the unsterilized clothing, for fear of contamination.

Articles to be disinfected should be thoroughly heated before coming in contact with the steam, so that the latter may not condense on the surface of the articles and thus be prevented from penetrating; they should not remain too long in contact with steam, and after the steaming process is over they should be well dried by heat before being exposed. It is sufficient to expose the articles to steam at the temperature of boiling point for twenty minutes, that is, for twenty minutes after this temperature has been reached; this may be ascertained by an electrical contact thermometer or a thermometer placed in a tube through which the steam escapes. If steam under pressure is employed some simple form of manometer should he used to determine the degree of pressure of the superheated steam.

As regards the length of time given to the steaming process, it is of course evident that for the destruction of the germs simply the rule should be, the longer the better, but as the clothing is ruined by too long exposure the time should be restricted to twenty minutes; this time is sufficient, and the people should find out that their clothing was spoilt in sterilizing they would be deterred from sending it. (Esmarch, of course, says this under the supposition that the authoritities provide for the sterilization by steam of clothing, etc., a point which our civilization here has not yet reached, however necessary it may be).

Some discrimination should be employed in determining what articles can withstand steam without injury; for example, sterilization by this method would not be appropriate for stamped plush, leather, skins, or waterproof material; linen or similar material placed in contact with iron would be ruined by "iron mold." Grease should always be removed if possible before the articles are put into the sterilizer, otherwise it becomes fluid and is liable to spread to other parts. If blood or pus be present they are, of course, coagulated by the heat; chlorine or other chemical solvents will afterwards remove them effectually. Musty bedding and old clothes should on no account be put into the sterilizing chamber along with new clothes and fine linen, as the musty smell, which the heat never destroys, is communicated from one to the other and can only be gotten rid of by long-continued exposure to a plentiful supply of fresh air. It is hardly necessary to say that sterilized clothing should not be sent back to contaminated rooms until the latter have also been disinfected.

While these hints convey no profound wisdom, yet they are very important; the points are those which persons without much experience in practical disinfection would easily overlook unless reminded of them; further, the most of them are as applicable to disinfection on a small scale as on a large scale.

Immunity from Diphtheria and Tetanus.—Dr. Behring has made known the chemical agent employed by him and Dr. Kitasato in their experimental investigations on diphtheria and tetanus. This is trichloride of iodine, which, injected subcutaneously in animals inoculated with either virus, not only cures them, but renders them immune to subsequent infection. Peroxide of hydrogen in 10% solution can also confer such immunity in respect of diphtheria.—*Medical and Surgical Reporter*.

MEDICAL ITEMS.

PROFESSOR KOCH goes to Egypt about the middle of February.

THE COST OF THE JOHNS HOPKINS HOSPITAL.—Up to two years ago, the buildings of this hospital cost about $2,000,000.

FEMALE PHYSICIANS IN JAPAN.—*Sei I-Kwai* says there are fifteen female practitioners in the City of Tokyo, among whom is one American M. D.

BROMOFORM IN PERTUSSIS.—Dr. J. A. Krieger, in the *Texas Courier Record*, highly recommends bromoform in two to three drop doses, several times daily, for whooping cough.

OUR REPRESENTATIVES.—The following named gentlemen are now traveling in the interests of the REVIEW, the *Annals of Surgery* and the *American Journal of Ophthalmology*: Drs. J. W. Lanius, B. S. Snyder and J. A. Williamson.

ACCIDENT TO PROF. BERGMANN.—It is said that Prof. Bergmann has had the second finger of his right hand amputated on account of threatened blood poisoning from an operation on a lupus patient who was undergoing the Koch treatment.

THE MINNESOTA PRACTICE ACT.—The operation of the Minnesota Medical Practice Act has reduced the ratio of physicians, from one to six hundred and fifty, to one in twelve hundred and fifty. During the past three years two hundred and five candidates presented themselves for examination, seventy-seven of whom were rejected.

GOAT'S BLOOD CURE FOR TUBERCULOSIS.—This method, which was mentioned in the REVIEW some weeks since, is based on the well-known immunity of goats to tuberculous infection. Drs. Bertin and Picq, of Paris, are investigating—and they say, with encouraging prospects—the protective effects of injecting goat's blood into tubercular patients.

THE SIZE OF THE FŒTUS.—Anvard states that the length of the fœtus at different ages is about as follows: At the middle of the fourth month it is eight inches in length; at the middle of the fifth month, ten inches; of the sixth month, twelve inches; of the seventh month, fourteen inches; of the eighth month, sixteen inches; of the ninth month, eighteen inches, and at the end of nine months it is twenty inches long.

TWO NEW HYPNOTICS, trional and tetronal, have recently been tested by Drs. Barth and Rumpel, of Hamburg. They proved to be of about equal value with sulphonal. In certain cases of nervous affections, however, where the last named failed, the two former had the desired effect, and therefore may find a field of usefulness in this direction. Injurious after-effects were not observed, and faintness, sleepiness, etc., were not complained of, as is sometimes the case with sulphonal. The dose of both trional and tetronal is between forty-five and sixty grains daily, given in single fifteen-grain doses; the remedies are best administered early in the evening, finely powdered, and mixed with about six ounces of fluid.—*Medical Record.*

NO CREMATIONS IN DENMARK.—The Parliament has decided that, for the present at least, nobody shall be cremated in that country. The reason is that proper safeguards have not yet been provided to guard against the concealment of unnatural death. The same objection has been urged in England since the cremation of the body of the Duke of Bedford.

THE "BLACK DEATH" IN SIBERIA.—The terrible scourge known as "black death," has reached the City of Tobolsk, the capital of West Siberia. The whole of Asiatic Russia from Samarkand to the mouth of Obi is suffering from the scourge. Thousands are dying at Obdorsk, near the mouth of the Obi, owing to the lack of physicians. It seems almost hopeless to try and check the spread of the fearful disease.

DEATH OF DR. J. M. QUIGLEY.—We regret the necessity that calls for the announcement of the death, on January 21, of Dr. J. M. Quigley, of Peirce City, Mo., whose able article on Therapeutics, appeared in the REVIEW not long since.

Dr. Quigley, while on his way to see a patient, met with an accident that required amputation of his leg above the knee. It was from the effects of this accident that he died.

"GUN WA" FINED.—Three defendants in the Gun Wa cases at Milwaukee were each fined $500 last week in the United States Court, a mild punishment, to our thinking, for such a brazen swindle. The defendants pleaded guilty to the charge of sending obscene matter through the mail under the agreement that all other counts would be dropped. Four indictments are still standing against F. L. M. Smith, of Denver, one of the partners in the scheme.

THE CLINIQUE.—We note with pleasure the changes that have been made in our estimable city contemporary, *The Clinique.*

Under the direct editorial charge of Dr. William Porter, as it now is, it cannot fail to gain in the high estimation in which it is already held by its many readers.

The appearance of the journal has been much improved by the new dress which it took on, beginning with its January issue for '91.

For Chilblains.—The editor of *Sei-I-Kwai* says that for the last three years he has obtained excellent results in the treatment of chilblains by using the following:

℞ Ac. sulphurici, - - - - - ʒj.
Ol. olivæ, - - - - - ʒiij.
Sp. Terebinthenæ, - - - - ʒj.
M. Sig.: Apply twice a day.

As sulphuric acid and turpentine explode when brought together, the druggist should be cautioned to mix the oil and turpentine first, and then add the sulphuric acid gradually. When finished, the mixture is not an explosive one.

Boric Acid in the Treatment of Tuberculosis.—Dr. Gaucher, writing in the *Bulletin Medical*, speaks highly of the action of boracic acid in cases of pulmonary tuberculosis. In cases so treated the author notes a marked diminution in the amount of expectoration, which also becomes more fluid and less purulent. In a number of cases submitted to this treatment, and kept under observation for five years, there had been no progress in the pulmonary lesions, and the general condition of the patients had improved. At first he gave but fifteen grains of the acid a day, but of late he had gradually increased this dose to one drachm daily, with apparent benefit. The drug possesses the advantage of being tasteless, and produces no gastric irritation. In certain cases it seemed to exert a beneficial effect upon the diarrhœa.—*Medical Record.*

A Surgical Use for Ants.—Ants have very powerful jaws, considering the size of their bodies, and, therefore their method of fighting is by biting. They will bite one another, and hold on with a wonderful grip of the jaws, even after their legs have been bitten off by other ants. Sometimes six or eight ants will be clinging with a death grip to one another, making a peculiar spectacle, some with a leg gone, and some with half the body gone. One singular fact is that the grip of an ant's jaw is retained even if the body has been bitten off and nothing but the head remains. This knowledge is possessed by a certain tribe of Indians in Brazil, who put the ants to a very peculiar use. When an Indian gets a gash cut in his hand, instead of having his hand sewed together, as physicians do in this country, he procures five or six large black ants, and holding their heads near the gash, they bring their jaws together in biting the flesh, and thus pull the two sides of the gash together. Then the indian pinches off the bodies of the ants and leaves their heads clinging to the gash, which is held together until the gash is perfectly healed.

Additions to the British Pharmacopœia.—The additions, forty-four in number, fall into two classes, namely (1) new substances and preparations of them, and (2) new preparations of drugs already recognized.

The new drugs added to the Pharmacopœia are as follows:

Articles.	Preparations.
Acetanilidum (antifebrin).	
Adeps Lanæ.	Adeps Lanæ Hydrosus.
Eucalypti Gumma	
Euonymi Cortex.	Extractum Euonymi Siccum (Euonymin).
Gelatinum.	Suppositoria Glycerini.
Glusidum (saccharin).	
Hamamelidis Cortex.	Tinctura Hamamelidis (1 to 10).
" " Folia.	Extractum Hamamelidis Liquidum and Unguentum Hamamelidis.
Homatropinæ Hydrobromas.	Extractum Hydrasis Liquidum; Tinctura Hydrastis (1 to 10).
Hydrastis Rhizoma.	
Oleum Cadinum.	
Paraldehydum.	
Phenacetinum.	
Phenazonum.	
Picrotoxinum.	
Strophanthus.	Tinctura Strophanthi (1 to 10).
Sulphonal.	

The new preparations of drugs already recognized are:

Articles.	Preparations.
Acetum Ipecacuanhæ.	Pilula Ferri (Blaud's Pill.)
Emplastrum Menthol.	Syrupus Ferri Subchloridi.
Liquor Cocaine Hydrochloratis (10 per cent).	Pulvis Sodæ Tartaratæ Effervescens (Seidlitz Powder).
Liquor Morphinæ Sulphatis (1 per cent).	Sodii Benzoas.
Liquor Trinitrinæ (solution of nitroglycerine).	" Nitris.
Magnesia Sulphas Effervescens.	" Phosphas Effervescens.
Mistura Olei Ricini.	Stramonii Folia.
	Trochisci Sulphuris.
	Unguentum Conii.

There is also one addition to Appendix II. of the Pharmacopœia; this is Solution of Potassio-cupric Tartrate, "commonly known as Fehling's Solution."—*British Medical Journal.*

CORRESPONDENCE.

THE MALARIAL ORGANISM.

St. Louis, Mo., Jan. 15, 1891.

Editor Medical Review.—Some time ago there appeared in the Review a paper which I read before the Medical Society of the Missouri Valley upon "The Lesson Taught by the Malarial Organism."

Since that time I have received a number of letters from different members of the profession here in the West, some asking for further information, others advancing theories of their own. Since limiting my practice to a specialty, I very naturally have not the time nor the inclination to devote myself to the study of the curious hæmatozoa. I deem it, however, a duty to

the medical profession and to the readers of the REVIEW, to lay before them a letter which, besides being an honest opinion, evidences considerable thought and

"LIBERTY, TEXAS, Dec. 15, 1890.

"DEAR DOCTOR LOEB.—Apprehending that in my last letter I did not fully explain my views in regard to the frequent occurrence of malarial fever at the confluence of salt and fresh waters, and the causative significance of these natural conditions, I take great pleasure in further expounding them.

"There is a notable difference when one's attention is called to it, that is, this feature becomes somewhat more manifest. For instance, I called the attention of my friend, Dr. J. J. Burroughs, to this matter and he agreed with me, that there is some element of difference which he could never explain, in the geographical distribu ion of disease.

"He instanced the differences between the diseases, as taken from the weekly mortuary reports of Galveston, located on a sand island in the Gulf, and that of Houston, 52 miles inland, at the head of the water on Buffalo Bayou.

"Thus it has been observed that there are many cases of typhoid fever in Galveston; in Houston, none; but in the latter place malarial fevers, particularly of the continued type, in abundance. There are many cases of acute congestion in Houston, few in Galveston, which is the seat of more passive cases.

"And so on, as far as my observations extend almost throughout the whole catalogue of diseases, do we find this difference.

"When you advance inland a hundred miles and more, northward, you will see the same malarial influences but modified more or less by season; very frequently it is of a severer type. Take, for example, the 9 cases of acute ascending paralysis related by the late Dr. Flint in his book on the Practice of Medicine. To my recollection, it appears that they all occurred within a few miles of salt-water. So I might go through the entire category of diseases and might give many which are modified by malarial influences, dependent in a great measure upon the proximity to the confluence of salt and fresh waters.

"That 'nice little gentleman' which infests the red blood-cells, and which you describe as the cause of the disease, I consider the parent of all this class of diseases which, by evolution, and by this I mean 'evolution by adaptation' as propounded by Prof. Tyndall, is the cause, or perhaps the consequence, of the manifestations which we perceive in our different cases. And in addition, these manifestations will differ in very short distances as Galveston and Houston, by reason of the occurrence of animal or vegetable decomposition. Then, again, carrying out the idea of evolution by adaptation, and the decomposition of animal and vegetable matters, causing malarial fever, these fevers will present somewhat different manifestations, depending upon the predominance of either decomposition, the animal or the vegetable.

"Now, doctor, can you think of any other localities where that difference of excess may arise more than at the junction of fresh and salt water? I can not.

"While I fear that the great amount which I have written has rather overpowered the views I intended to convey, I must say to you as did the great Voltaire: 'I have not time to write more briefly.'

"Yours very truly,
G. W. NEWMAN."

The only comment I have to make on the above is to suggest a microscopical study of the diseases portrayed as occurring in Galveston, Houston and a hundred miles inland.

I also desire to re-announce what I said in my paper—and this will be my last writing upon this subject—that the general practitioners, and more especially the microscopical scientists of the Mississippi Valley, should study the question of malarial fever of the United States as it has been studied in France and Italy, thereby enhancing the knowledge, now scant, upon this subject, and reflecting no little glory upon those who put their heart therein.

HANAU W. LOEB, M.D.

3148 Locust Street.

BOOKS AND PAMPHLETS RECEIVED.

A Practical Treatise on Impotence, Sterility and Allied Disorders of the Male Sexual Organs. By Samuel W. Gross, A.M., M.D., LL.D., etc. Fourth Edition, revised by F. R. Sturgis, M.D. Philadelphia: Lea Brothers & Co. 1890.

A Guide to the Practical Examination of Urine. For the Use of Physicians and Students. By James Tyson, M.D., Professor of Clinical Medicine, University of Pennsylvania, etc. Seventh Edition. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street. 1891.

An Illustrated Encyclopædia of the Science and Practice of Obstetrics. Illustrated with the Celebrated Moreau's Atlas of Eighty-four Folio Plates and 133 Wood Cuts. Edited by F. H. Gitchell, M.D., F.C.P., etc. 1890: J. H. Chambers & Co., 914 Locust Street, St. Louis, Mo.

Antisepsis and Asepsis Before and After Major Gynæcological Operations. By Howard A. Kelly, M.D., Professor of Gynæcology, Johns Hopkins University, Baltimore, Md. Reprint.

Removal of Tonsillas Hypertrophy by Electro Cautery Dissection. By Edwin Pynchon, M.D., Chicago, Ill. Reprint.

Phenacetine—Bayer,—Its Rection. Recent Results. W. H. Schieffelin & Co., New York.

Fifty Remembers for Druggists. By H. M. Whelpley, M.D., Ph.G., St. Louis.

Text-Book of Hygiene: A Comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American Standpoint. By George H. Rohé, M.D., Professor of Obstetrics and Hygiene in the College of Physicians and Surgeons, Baltimore, Md. Second Edition. 1890. Philadelphia: F. A. Davis.

Twelve Lectures on the Structure of the Central Nervous System, for Physicians and Students. By Dr. Ludwig Edinger, Frankfort on the Main. Second Revised Edition. Translated by Willis Hall Vittum, M.D.; Edited by C. Eugene Riggs, A.M., M.D. 1890. Philadelphia: F. A. Davis.

Abnormal Intra-Thoracic Air-Pressures and their Treatment. Address at the Seventh Annual Meeting of the American Climatological Association, September 2, 1890. By Charles Denison, A.M., M.D., of Denver, Colorado, President. Reprint.

Lectures on Some Urinary Disorders Connected with the Bladder, Prostate, and Urethra. By Reginald Harrison, F.R.C.S., England. Baillière, Tindall & Cox, 20 and 21 King William Street, Strand, W. C., London. 1890

The General Pathology of Tuberculosis. By Jos. Eichberg, M.D., Cincinnati.

A Brochure on the Hypodermic Treatment of Internal Hæmorrhoids. By Q. A. Shuford, M.D., Tyler, Texas.

Wood's Medical and Surgical Monographs, Vol. 8, No. 3, December, 1890, containing:

I. Practical Guide to the Demonstration of Bacteria in Animal Tissues. By Dr. H. Kuehne.

II. On the Present Position of Antiseptic Surgery. By Sir Joseph Lister, F.R.S.

III. Cancer and Its Complications. By Charles Egerton Jennings.

IV. The Treatment of Epilepsy. By Dr. Ch. Fere.

V. Hand-Book to Dr. Koch's Treatment in Tubercular Disease. By Drs. Gruen and Severn.

Wm. Wood & Co., New York.

The Result of Eliminative Treatment in Five Hundred and Ninety-Four Cases of Yellow Fever, with a loss of less than two percent, in the epidemic at Jacksonville, Fla., in 1888. By George F. Center, A.M., M.D. Reprint.

Annual Report of the Postmaster-General of the United States, for the fiscal year ending June 30, 1890. Washington: Government Printing Office. 1890.

The Evolution of Sex. By Professor Patrick Geddes and J. Arthur Thomson. Double number (Parts I and II); illustrated. Price 30 cents; subscription price $3.00 a year. New York: The Humboldt Publishing Company, 28 Lafayette Place.

A Compend of Diseases of Children. For Medical Students. By Marcus P. Hatfield, A.M., M.D. 1890. Philadelphia: P. Blakiston, Son & Co.

Chronic Interstitial Nephritis. By P. G. Robinson, M.D., St. Louis. Reprint.

The Present Status of the Tuberculosis Question. By L. Bremer, M.D., St. Louis. Reprint.

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SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, January 24, 1891, the Vice President, Dr. J. C. Mulhall, in the Chair.

Dr. Y. H. Bond presented a specimen of

Ectopic Pregnancy.

He did not wish to report a case of mere ectopic pregnancy, since he did not see the patient from whom this specimen was obtained during life. She bled to death and presented the usual symptoms incident to a lesion of this character; the diagnosis was not made.

On post-mortem the abdominal cavity was found filled with clotted blood, proceeding from a rupture of the right Fallopian tube, as was then discovered.

With great confidence, Dr. Bond pronounced this a case of ruptured tubal pregnancy; for whilst no fœtus was found (none being sought for), the gross appearance of the parts justified him in excluding all other lesions to which the tubes are liable. Nothing here was found to sustain the belief that inflammatory disturbances which, in rare instances, attack the tubes or the neoplasm, could produce the pathological appearances present. Extravasation of blood into the tubes, with subsequent rupture into the abdominal cavity, in conse-

quence of distension of the tube, and unassociated with extensive inflammatory alterations of the walls of the tube, rarely, if ever, occur; therefore, there was no question but that the specimen is that of a ruptured tubal pregnancy. It will be submitted to Prof. Summa for microscopic examination, and there is no doubt that histological appearances will be found that will demonstrate the existence of placental tissue at the point of rupture, and that the uterine cavity is lined with a decidua vera and perhaps villi or decidua cells. Here are seen the uterus, together with both broad ligaments and ovaries. The uterus is three times as large as the normal unimpregnated uterus, and from its size the doctor predicted there would be found evidences of chronic metritis, associated with an increased development of the muscular element, the latter being incident to the innervation of pregnancy.

The speaker believed the uterus to be much larger than is usually the case at that stage of extra-uterine pregnancy, being perhaps six weeks. The ovaries, too, are quite large. No evidences of a corpus luteum of pregnancy can be detected. Small cicatrices are seen, the sequelæ, perhaps, of ruptured follicles, but nothing pathognomonic of a corpus luteum of pregnancy. In 1881 Mr. Tait stated that evidence was rapidly accumulating in his hands that "corpora lutea are not a *necessary* result of the maturation and shedding of true ova;" and in 1889 he reiterates the same assertion. The determination of the truth in this regard may possess an important medico-legal bearing, and no case that may come before us that can throw light upon this subject should escape our scrutiny. Perusal of nine-tenths of all that has been written upon the subject of ectopic pregnancy will impress one with the belief that ectopic gestation is a veritable curiosity—a case of nature let loose, without restraining, or guiding influences, that should act with any degree of uniformity in determining the steps of her aberrant course. And as a consequence it was for a long time thought to be idle to attempt to establish anything like a defined line of action, in dealing with a process so eccentric. And thus is explained the fact, that century after century rolled on, and no intelligent method of combating the deadly agency of this process was discovered. Countless thousands of women have gone to their graves prematurely, because no Tait had arisen to unravel the mysteries of ectopic gestation, and point out a sure and reliable method of dealing with the same.

Although the propriety of performing laparotomy, tying off the vessels, and removing the gestation-sac, had been suggested by many, it was not until 1883, that a man appeared, who had sufficient courage of his convictions upon the subject to put his conceptions into actual practice. In 1873 Tait formulated certain conclusions respecting ectopic pregnancy, and so far as had come to his knowledge all carefully conducted observations upon the subject since then have served to establish their correctness.

He claims that all ectopic pregnancies are primarily tubal, unless, perchance, there should be an ovarian variety, which, as yet, has not been proved. Clinically, two kinds of tubal pregnancy are met with, viz., the one occurring in the free portion of the tube, and the other in that portion of the tube embraced in uterine tissue, the old interstitial form.

In explaining the cause of Fallopian pregnancy, he refers to the similar states found in the mucous surface of the uterus after menstruation, and that of the tubes in desquamative salpingitis.

Menstruation is regarded as a nidation process, a state in which the epithelial layer of the mucous membrane of the uterus has been thrown off, thus fitting the cavity for the retention and nutrition of the fecundated ovum during the period of its early existence, and the formation of the placenta subsequently.

The cilia of the healthy tube, acting in a direction toward the uterus, assist in conducting the ovum to the uterine cavity, and at the same time hinder the ingress of spermatozoa.

A result of desquamative salpingitis is to remove the cilia and place the mucous surface in a vascular state similar to that of the uterus after menstruation, as regards its power to furnish nutrition to the ovum in its early life. The conditions for the formation of the placenta are not limited to uterine tissue, even though the Fallopian tubes be regarded as a part of the uterus.

When we reflect that the placenta is a product of the chorion, and that the latter is the property of the ovum, we can understand how the inherent forces of the fecundated ovum will take on activity, if the requisite warmth, moisture and nutritive elements are at hand.

In confirmation of the desquamative theory, Parry says "women who have become pregnant outside of the uterine cavity often show a previous inaptitude for conception, the interval between marriage and the first impregnation being frequently very long.

If the woman has borne children, a period of sterility frequently precedes the extra-uterine pregnancy. The fact that the woman has been sterile points to the conclusion that there has been Fallopian trouble. The recent observations of Forman, read at the meeting of the "American Association of Obstetricians and Gynæcologists," serve to confirm the theory of Tait as to the influence of desquamative salpingitis in occasioning extra uterine pregnancy.

If it be conceded that impregnation usually takes place in the tube, we thence derive an argument against the theory that desquamative salpingitis played an important role in causing Fallopian pregnancy. It will be remembered that in the latter part of the last century and the early part of this, it was believed that the spermatozoa passed along the Fallopian tube, reached the ovum and conception took place at the ovary and that the impregnated ovum retraced its steps and entered the cavity of the uterus.

Experiments on lower mammals, show that the spermatozoa are usually found high up in the cornua of the bi-partile uteri, (the cornua erroneously supposed to be

Fallopian tubes). Fallopian tubes only exist in the higher order of animals, those that have assumed the upright position. That is the position advanced by Mr. Tait.

The observations of Parry and Forman, as regards the association of sterility and extra-uterine pregnancy, will find general confirmation. The very first case of extra-uterine pregnancy of which we have any history was furnished in 1594, when a Dr. Primrose operated successfully, and saved both mother and child. That case was preceded by the occurrence of extra-uterine pregnancy, a dead child having been removed several years before by the same surgeon through a large aperture in the abdominal parietes in consequence of necrosis of the part.

To understand the pathology and course of ectopic pregnancy, consider the anatomy of the parts. Suppose (illustrating) my handkerchief as it folds over this pencil to represent the broad ligament and this pencil the Fallopian tube. An ovarian pregnancy may possibly occur, but it has not been conclusively shown. In consonance with this view, it was believed that many cases of extra uterine pregnancy were really cases of ovarian pregnancy. Many pathological specimens are found in museums labeled "ovarian pregnancies," and the appearances furnished by a Fallopian pregnanacy when the gestation sac has not been ruptured, are very suggestive of an ovarian form. But a close examination of these specimens serves to demonstrate that very few if any are ovarian pregnancies. Possibly some of them are ovarian and that we might expect; we have cysts formed in the fimbriated portion of both Fallopian tube and ovary; both play a part in their formation; and it is reasonable to suppose that in certain instances the fimbriated extremity of the Fallopian tube, in consequence of inflammatory action, would become adherent to the ovary and the spermatozoa be carried down to the ovary, and impregnation there take place. In that case we would have a combined form of ovarian and Fallopian pregnancy. In one portion of the gestation-sac we would have ovarian tissue and in the other the tissue of the Fallopian tube. In order to prove that any case is strictly one of ovarian pregnancy, it would be necessary that the Fallopian tube should be intact (normal), the uterus should be intact and at least one ovary thoroughly intact; and whilst the other ovary might not be present, to demonstrate conclusively that it was an ovarian pregnancy, ovarian stroma should be found throughout the cyst wall of the pregnancy. The speaker did not know a single case recorded in which ovarian tissue had been found throughout the cyst wall.

Tubal form of pregnancy.—Mr. Tait claims that all pregnancies are primarily tubal, taking place in the free portion of the tube. It is only exceptionally the case that impregnation takes place in the tube during its passage to the uterus. When however tubal pregnancy occurs the fecundated ovum will be accommodated in the Fallopian tube only for a short time; the tube will be ruptured; at least we my expect a rupture of the Fallopian tube at some time before the expiration of the fourth week. A rupture will take place at the upper portion of the tube where the layers of the broad ligament fall over it as a curtain; and opening directly into the peritoneal cavity, we will have as a result death from hæmorrhage or septic peritonitis. In the vast majority of cases death occurs very promptly usually, in time ranging from a few hours to a few days. The patient may die from hæmorrhage in its primary stage—from the first gush of the hæmorrhage; and continuing until the woman perishes. It may be stayed for a time by a clot and then recur. As a rule death ensues immediately because there is no influence to arrest the hæmorrhage. The parts being exceedingly vascular at the point where the hæmorrhage occurs a large quantity of blood is poured into the peritoneal cavity. By its presence peristalsis is excited; the patient in consequence of her suffering is restless; cannot be kept still; therefore, the conditions requisite to the coagulation of blood cannot be complied with.

When rupture occurs at the lower portion of the tube, we have a sub-peritoneal pregnancy, and there ensues one of five results:

1. The fœtus may live and reach a viable period.
2. It may be converted into a lithopædion.
3. It may perish and be absorbed as an hæmatoma.
4. It may undergo suppuration and be discharged through the bowel, vagina, the bladder or abdominal wall at or near the umbilicus.
5. It may develop up to a certain point and then rupture into the peritoneal cavity, constituting what is known and designated as a secondary rupture. This secondary rupture may cause death or the fœtus may be extruded into the abdominal cavity without amnion, chorion, or decidua to invest it. Cases are reported in which the fœtus has been in the abdominal cavity, surrounded by the intestines, with no covering at all; but in such instances the placenta was found in general attached sub peritoneally, and the presumption is strong that the pregnancy had proceeded up to perhaps the seventh or eighth month, and then a portion of the broad ligament had given way and the fœtus was emptied into the free peritoneal cavity. That the peritoneal secretion does exercise a decided digestive influence upon soft structures cannot be questioned, since Mr. Tait reports he has operated forty times and yet he only found about twelve fœtuses; but he found placental tissue in every case; the fœtus had been absorbed, digested by the peritoneal secretion.

Nor is the rupture of the Fallopian tube due to distension. At the point where the placenta happens to grow, if from the upper wall of the tube, it will penetrate the true tissue of the tube in the form of venous channels, the placental tissue becoming constantly thinner, a rupture will finally take place as a consequence and then of necessity alarming hæmorrhage takes place.

If the pregnancy should be developed at the lower portion of the tube, in the direction of the broad ligament, a rupture will take place by the same processes in that direction, and then are presented either of the five conditions enumerated.

It surely is a decided desideratum to be able to diagnose extra-uterine pregnancy—tubal pregnancy, before rupture. Were we thus endowed and the proper course pursued many lives would be saved. Should the patient consult us about her condition previous to the time of rupture, and we be induced to make a physical examination, the speaker thought the testimony of the physical signs considered in connection with the subjective symptoms, in the vast majority of cases would amply justify the presumption of extra-uterine pregnancy; in fact, a presumption so strong that the neglect to make an exploratory laparotomy would be inexcusable. Suppose a case: A woman gives the history of sterility, a condition not the consequence of her choice; has been regular in her menstruation, and yet a few weeks previously she had missed a menstrual period; had passed a week, ten days or two weeks or more; then menstruation returned, profuse and regular; she had pain in the region of the Fallopian tube; her attention is directed to that region by the sense of discomfort, and recurring attacks of pain; her breasts are enlarged; suffers from nausea; and may or may not present those subjective indications of pregnancy that exist when the pregnancy occurs in the uterus. In addition, there is discoloration of the vagina, especially that portion of it in proximity, or adjacent to the urethra; the cervix is soft, and the uterus continues to develop up to about the first or second month; and in addition, we have in the region of the Fallopian tube, upon the side of the uterus or posteriorly to it, a mass corresponding in size to that of a normal pregnancy at that period. This combination of symptoms would furnish strong presumptive evidence of pregnancy; especially if, after one examination had been made and the size of the mass definitely ascertained, a subsequent examination should reveal a decided increase in size, then the conclusion would be almost inevitable. In a case of hydro-salpinx the outline of the tumor, in a case of pyo-salpinx, the increased sensibility will assist in reaching a satisfactory conclusion. Diagnoses of tubal pregnancy before rupture have been made, and appropriate operations performed; and when this sequence of symptoms is present our minds should be on the *qui vive* for the possibility of such a condition of things. The diagnosis of tubal pregnancy at the time of rupture is almost unequivocal, no excuse could hardly ever be claimed for failing to diagnose it, and to invoke promptly the one only surgical interposition that can rescue from impending death. The woman, as a rule, is taken suddenly ill; complains of pain in the pelvic region; at once becomes collapsed; is faint; almost pulseless; cries for water, the demand being like that of the wounded soldier when profusely bleeding; her anæmic state indicates conclusively that she is suffering from loss of blood, and if there is no palpable explanation for it elsewhere, it is imperative that her surgeon open the abdomen and ascertain that she is not bleeding from a ruptured Fallopian tube.

In respect to a diagnosis of a rupture of the tube into the broad ligament: The subjective symptoms render less assistance than in the case of rupture into the abdominal cavity, but the physical indications are more positive. The woman suffers from collapse to a degree corresponding to the amount of blood effused. In some it is very great; even to the separation of the broad ligament and the formation of a virtual stricture around the rectum, and thus obstruct the passage of the fæces. In such cases the degree of systemic disturbances would be very pronounced. If the symptomatic history of the extra-uterine pregnancy be considered together with the sudden occurrence of collapse, the finger introduced into the vagina detecting a hæmatoma, of concave form below and sufficiently large to fill the pelvic inlet, being convex above, the conclusion is almost absolutely convincing that the case is one of ruptured tubal pregnancy into the broad ligament. If the rupture has thus taken place, and the child continues to live, it will be impossible to diagnose the existence of a viable child until after the expiration of the fourth month. After this period the heart sound and souffle will afford sufficient data to determine the existence of a living child. In case of the death of the child and partial absorption of the gestation-mass at or near full term, there ensues a process of spurious labor. Women sometimes are in labor for several days, exhibit symptoms that simulate those of true labor, but the cervix is not drawn up as it is in labor at the full period. After the cessation of labor pains, the mass promptly becomes reduced in size, the amniotic fluid undergoes absorption—the amnion closely invests the child, and the process of digestion is rapidly instituted. The rapid reduction in size, apart from the absence of motion, is one of the strongest evidences that the child has perished.

Interstitial pregnancy. It is impossible to diagnose this condition either by physical or subjective symptoms on account of the many and conflicting conditions that exist. These cases usually rupture into the peritoneal cavity at a time varying from three to twenty weeks. If it were possible to diagnosticate a case of interstitial pregnancy one mode of treatment only is indicated, viz., Parry's operation.

Primary rupture into the abdominal cavity. This demands a laparotomy promptly; the bleeding portion of the broad ligament, in which the sac is situated, must be ligated and removed. The result in such cases is usually a very happy one. Mr. Tait reports 38 cases with only 1 death; Martin reports 11 cases, with 3 deaths; therefore, in view of the fearful mortality that existed previous to the institution of this method of treatment, there no longer exists any question of the propriety of this procedure.

Rupture into the broad ligament: In cases of this kind, the fœtus being dead, a hæmatoma is formed; if it be moderate in quantity the question arises as to the advisability of attempting its removal, surgically, or to leave it to nature to remove it by absorption. Some contend that an operation is the proper thing; others deny that laparotomy and the opening of the broad ligament, cleaning out the collection of blood is the best

surgery. If the condition of the patient seems not to be serious, and the collection of blood not unduly large, the speaker said he would be disposed to leave it to be absorbed; for hæmatomata are not of very uncommon occurrence, and it is known that they do undergo absorption. Nothing is more common than a metastasis—a discharge of blood after operation on the broad ligament for the removal of an ovarian cyst, and yet rarely do we have an unpleasant result. As a rule, therefore, no operative measure is called for, as this mass of blood will be absorbed. It has been contended, however, that in all cases of hæmatoma complicated with extra-uterine pregnancy, a laparotomy or an operation on the broad ligament through the vagina should be practiced, for the reason that in such cases sepsis sooner or later attacks the effused blood, upon the assumption that the desquamative salpingitis was due to a septic condition, and that the septic germs still existing in the Fallopian tube would, in the course of six months, infect the blood poured out into the broad ligament. As a matter of course, if the discharge of blood into the broad ligament was of such extent as to endanger the life of the patient or render it almost certain that suppuration would ensue, the wise course would be to perform a laparotomy, open the broad ligament, cleanse it thoroughly (and if necassary use some styptic application) and stitch the divided portion of the broad ligament to the abdominal opening; and if possible insert a drainage tube.

What line of action shall be adopted when extra-uterine pregnancy is diagnosed at the fourth month or thereafter, the fœtus being alive but not viable? Shall efforts be made to destroy the child by electricity—by the injection of morphine or by other means, or shall we by a laparotomy remove it at once; or wait till it reaches a viable period, and then attempt to save both mother and child?

Should such a case be diagnosed as early as the fourth month, an attempt for its removal should be made before the interests of the mother become very seriously compromised, for the smaller the placenta the less the danger; the greater also the possibility of tying off the vessels and greater likelihood of saving the mother. But if the child was near the viable period the speaker would wait until it reached the full period; but if it was detected near the fourth month, then the fœtus should be sacrificed and removed in order to save the life of the mother.

Martin, of Chicago, has recently experimented with the view of determining the comparative potency of the Faradic current and galvanic current in destroying eggs in the process of incubation, and has awarded it to the latter.

In regard to the destruction of the child, statistics show that in 1888 and 1889 eleven cases were operated on in which the children were viable; four mothers died, and four children were saved, making a mortality of 36%. In operations performed from six to eight weeks after the death of the fœtus, of 44 cases reported in 1888 and 1889, there were 9 deaths, a mortality of 20%.

These are vastly more favorable results than were obtained in the time of Parry, who says in 1873, "of nine women operated on during fœtal life, or soon after its extinction, they all died." The clamp then was in use, and no antiseptic precautions were then employed. Consequently, causes of mortality then prevailed that do not exist at the present day.

Operation of laparotomy, removal of the child.—Mr. Tait recommends that the placenta be left intact, that the umbilical cord should be tied low down, and that an effort should be made to excise the amniotic cavity in which the child had been contained; and that the abdominal incision should be made not in the median line, the conception being below the broad ligament, and as the gestation-sac increases in size the broad ligament is carried up; consequently, the incision is made to the right or to the left of the median line, as the case may require; if the child is upon the right side, the incision should be to the right of the median line, and *vice versa.* By that means it is sought to avoid entering the peritoneal cavity at all. The sac, after thorough ablution, is sewed to the opening in the abdominal wall. Mr. Tait has operated upon seven cases and has succeeded in saving three women.

Attempts have been made to remove the viable child through the vagina, but the results have been unfortunate. The speaker knew of but one case in which a living child has been thus removed, the reason assigned being that the circulation is so seriously interfered with during the extraction of the child that it is dead before delivery is accomplished; laparotomy, therefore, furnishes a much more promising mode of operation in these cases than an effort to extract per vaginam.

If the child, however, has developed in the broad ligment, and a rupture, with hæmorrhage, has taken place secondarily from the broad ligament into the peritoneal cavity, and the symptoms are sufficiently grave, then it would be imperative to do a laparotomy, ligating the vessels below the placenta, if possible, and remove the placenta also.

In a case of suppurating ovum, the mass not being large, and it being possible to reach it readily from the vagina, its removal in that direction is advised; but if the mass be large and there be complicating conditions resulting from inflammatory states, a laparotomy is advised, and the removal of the suppurating contents through the abdomen, and then attach the cyst wall to the opening made in the abdomen, using drainage also. Ten cases have been reported in which, after one extra-uterine pregnancy a like pregnancy has occurred upon the other side. The question very naturally presents itself whether or not in such cases the removal of the appendages of both sides is indicated.

Dr. W. H. Ford said about fourteen or fifteen months ago he called the attention of the society to this subject, giving the views of ———, of Dublin, by whom all the points narrated were discussed, six or eight months before Tait's book appeared. The speaker strongly in-

clined to believe with Dr. Bond that the diagnosis of ectopic pregnancy was possible, even before the rupture of the tube. The diagnosis is certainly a very difficult matter, and in some cases almost impossible; yet a combination of symptoms is presented which would lead to the knowledge that something quite out of the usual character of inflammation and of pelvic troubles was present, though the usual associated loss of blood from the uterus may have ceased.

He thought the diagnosis of a rupture is not so readily made, as the expressions of Dr. Bond would lead us to believe, in the majority of cases. One of the forms of disease which most closely simulates a rupture of the tube or perhaps of the broad ligament after having been distended by a fœtus, is that of pelvic hæmatocele. The woman is bleeding intra-peritoneally, is in a state of collapse, suffers from sudden and acute pain, and reports irregularities of previous menstrual periods. He stated he had been able to arrive at a correct diagnosis from the condition of the pelvic contents. Some of the ordinary features of pregnancy were present, a round shaped swelling in the pelvis surrounding the uterus, the pain and other symptoms which had occurred in a milder form on one or two menstrual occasions previously, not immediately preceding, however. On the occasions cited these symptoms were greatly aggravated, and the woman nearly died; but the patient finally recovered; the case proved to be a pelvic hæmatocele.

Ectopic gestation having been diagnosed sub peritoneal, active interference should not be made until the time for normal labor. During labor the child is generally destroyed in consequence of the changes which take place.

The speaker reported a case in which a diagnosis was made at the eighth month, muscular movements being perceived and the fœtal heart detected, and it was advised and determined to let the woman alone until the ninth month. Labor did come on at full time, and the diagnosis was confirmed; the child died during labor; the uterus was found thrown strongly into the cervix in front (quite accessible to the finger), and had become again hard, and there was considerable hæmorrhage from the uterus. Delay of two or three months was advised until the child and the placental tissue should become absorbed. There is obviously an advantage in operating to the side of, instead of in, the median line, for thereby cutting into the peritoneum is avoided, the fœtus being generally developed behind the uterus.

The whole subject has been wonderfully developed by Dr. Tait's perspicacity, and he has negatived the idea of peritoneal inflammation; for that which was supposed to be a peritoneal sac is now known to be nothing more that a peritoneal-pelvic floor; and it is not true, as Cazeau remarks, that "although you may think it is the pelvic floor, if it is cut open real pelvic peri toneum will be found beneath the child."

Dr. Frank Glasgow said he had seen two cases certainly of extra-uterine pregnancy, and one possibly of interstitial; that Dr. Carson had presented one case to the society in which the patient recovered; that he had operated in a case of broad ligament pregnancy that progressed four months and a half; the fœtus then died, and was afterward carried for three years and a half. The speaker said he had diagnosed another case as probably of tubal pregnancy close up to the uterus; that patient disappeared until after the delivery of the child, and when seen four months afterward she was suffering with septic peritonitis.

Another patient had come under his charge only a short time ago; a young girl, unmarried, experienced a sudden, sharp pain in the abdomen and fainted, from all appearances from loss of blood; her pulse was very weak and rapid; she became perfectly white and remained so; her catamenia were regular, and she denied all possibility of pregnancy, but would not submit to an examination.

Dr. Glasgow thought the profession generally were in accord with Dr. Ford, that such cases should be let alone and allowed to go on as long as they would; if the fœtus dies, becomes encapsulated, it can then be operated on; if it causes a tumor, it can be operated on later.

SOCIETY NEWS.

REPORT OF THE LIBRARY COMMITTEE TO THE ST. LOUIS MEDICAL SOCIETY.

The following report of the Library Committee, made on January 31, ult., will be considered as a special order of business at the meeting of February 14. It contains some important recommendations, which should be carefully noted by all members.

St. Louis, January, 1891.

The undersigned, appointed as members of the Library Committee for the ensuing year, to whom were referred for consideration the address of the retiring president, and such other matters as might be brought before them for the better government and greater welfare of the Society, beg leave to present the following report:

1. Inasmuch as our By-laws require the opening of the regular meetings at 8 o'clock P.M., on Saturday of each week, we urge on the members of the Society to be punctual, as well to conform to the law as to economize time; two hours are hardly enough to devote to the work brought before us each evening. We respectfully request the president to call the meeting to order at the specified time, or as soon thereafter as a quorum shall be present.

2. In this connection we would state that the Society has been often disappointed by the absence of those announced to read papers or exhibit specimens; we would suggest the propriety or courtesy of informing the Society in ample time, of the inability on the part of the member to meet his appointment.

3. We do not desire to raise again the question of

annual assessment; certainly, not for its reduction. The subject was fairly and carefully considered several years ago. Our By-Laws make the annnal contribution five dollars; let it so remain.

4. The special meetings called on the occasion of the death of a member are so sparsely attended that it is a sad commentary on the nature of the resolutions then passed. If this cannot be helped, let us appoint along with the Committee some member, an intimate friend of the deceased, to report the resolutions and speak at the same time to some extent of his life and character. It would be an expression, at least, of more sympathy than is now manifested.

5. We respectfully recommend the adoption of the following resolutions, to-wit:

Resolved, That a fund be and is hereby created, to be known as the "Beneficiary Fund," for the relief of worthy indigent members of this Society, and for this purpose, be it

Resolved, That the Treasurer be instructed to set aside now $100; and hereafter at the first regular meeting of the Society of each and every year, the treasurer is instructed to transfer to the "Beneficiary Fund" the additional sum of $100, until the said Fund shall amount to $400, said Fund always to remain in the custody of the Treasurer. When disbursements shall have been made during any previous year less than $100, a sum equal to the amount disbursed shall be so transferred that the full amount, $400, of the Fund may be complete and available at the beginning of each year. If the amount of disbursement shall exceed $100, even then $100 only shall be transferred as provided, the balance being subject to future adjustment.

Resolved, That the Library Committee of each and every year shall have the control and disbursement of the "Beneficiary Fund" according to their discretion, and that the total amount of such disbursement shall appear in the annual report of the Treasurer.

Resolved, That the Treasurer be instructed to honor all orders on the Beneficiary Fund, when signed by all the members of said Library Committee.

6. We recommend an appropriation from year to year for the purchase of books and for subscriptions to journals, the selection being made by the Library Committee, who shall be responsible for the extent and character of the outlay.

As in all likelihood the Society can find a meeting place for a number of years in the Assembly Hall of the Board of Public Schools, there can be no doubt that at the same time the Public Library will afford the Society a place for its books, and a room apart from the general reading room, where members can undisturbedly pursue their studies.

7. We recommend the deposit on interest, from six months to six months, such amount of the funds of the Society as can be withdrawn from the Treasury without embarrassing the Treasurer in meeting current expenses.

Respectfully submitted,

Committee, { J. S. B. Alleyne, M.D.
H. C. Dalton, M.D.
F. J. Lutz, M.D.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

This association was organized on January 22, 1891, at the Academy of Medicine, No. 17 West 43rd Street, New York, by the adoption of a Constitution and By-Laws, and the election of the following officers:

President, G. Betton Massey, M.D., Philadelphia.

Vice-Presidents, William James Morton, A.M., M.D., and Augustin H. Goelet, M.D., New York.

Secretary, William H. Walling, M.D., Philadelphia.

Treasurer, Geo. H. Rohe, M.D., Baltimore.

Executive Council, Horatio R. Bigelow, M.D., Philadelphia; Franklin H. Martin, M.D., Chicago; Wm. F. Hutchinson, M.D., Providence, R. I.; Frederic Peterson, M.D., New York, and Chauncey D. Palmer, M.D., Cincinnati, O.

The object of the Association, as stated in Article II of the Constitution, is "The cultivation and promotion of knowledge in whatever relates to the application of electricity in medicine and surgery."

The Association starts with a strong and vigorous membership, and has every prospect for a most useful and successful career.

The next meeting will be held in Philadelphia, in September, of this year.

Wm. H. Walling, M.D., Secretary.

2005 Arch Street, Philadelphia, Pa.

SELECTIONS.

PROFESSOR VIRCHOW ON KOCH'S REMEDY.

The remarks made by Professor Virchow on the specimens that he showed at the discussion on Professor Fraenkel's paper at the Berlin Medical Society on Wednesday evening last week are calculated to give pause to those who, having seen cases of tuberculosis treated by Koch's method, have thought that all that was necessary in order to treat phthisical patients in the same fashion was a bottle of lymph and one of Koch's hypodermic syringes.

That a careful study of the nature, the extent, and the position of the tuberculous lesion was desirable has been gradually forced home, but that, in addition, the most careful selection of cases to be treated was absolutely necessary had scarcely entered into the calculations of some of those who considered themselves qualified to carry out Koch's method of treatment. We say this advisedly, as, from the nature of the cases recorded in the report of Virchow's "remarks," it will be gathered that even those most directly under the influnce of Koch's own personality and teaching have not been able to differentiate the cases likely to receive benefit from the injection of the lymph from those which would probably be injured by the same treatment. Virchow and his pupils have now had the opportunity of examining a number of cases that have been treated, and much light

is thrown on the nature of the processes that occur during the course of treatment. The most remarkable fact that is brought out in these cases is, that, in the human subject at any rate, we cannot depend on the disintegration of small tuberculous nodules taking place even in those cases in which we should naturally expect that such change would occur. It is found even in cases where the injections have been made very shortly before death, and for a considerable period previous to that time, that when the patient succumbed young tuberculous nodules, especially on the serous surface, were frequently seen, and in these there was not the slightest trace, even under the microscope, of the degenerative changes which are so characteristic of tubercle that has reached a certain stage of development.

We must assume, therefore, that the nature of the changes that occur in the human subject after the injection of the "lymph" are not the same in all respects as those that followed Koch's experimental injections.

The next most important fact brought out is, that Koch's statement that the bacilli are not killed is undoubtedly correct. Virchow, moreover, holds that not only are they not localised in a very large number of cases, but that there is actually an increased tendency to the formation of metastatic tuberculous nodules or areas, even at considerable distances from the original tuberculous focus. It has been stated that in the case of lupus the reaction—that is, the intense congestion and infiltration with leucocytes of the tissues that succumb—is usually localised, but in the case of the internal organs this localisation is not nearly so defined, although the hæmorrhages and hæmorrhagic infiltrations are always most marked in the granulation tissue of the tuberculous areas.

In the lymphatic glands, near the tuberculous foci, there is usually extreme swelling, much congestion, and great proliferation of the cells in the interior of the glands; the number of the leucocytes is increased in the blood, and it appears that to this increase of the leucocytes the cellular infiltration around the dilated and imperfectly developed vessels of the granulation tissues is due, especially when the blood stream is slowed in consequence of the intense inflammatory congestion. A most important question is that associated with the nature of certain changes found in the lower lobes of the lung in cases of chronic apical phthisis that have been treated by injection. In one case, up to the time when the injections were commenced, there had been no trace of any consolidation in the lower lobes of the lung, but, after six injections had been made, persistent fever came on, and infiltration of the lower lobe was diagnosed. When the patient died it was found that we had here the pathological changes that are usually associated with acute phthisis, secondary to a chronic apical tuberculosis with cavity formation; it differed only from other cases of the same kind, in that it was more rapid in its course and the post-mortem changes gave evidence of a more acute process than is usually met with.

From a careful consideration of this case it would appear that the injection did its work in the usual fashion, but too well; the local reaction was obtained, death and separation of the tuberculous tissues in the wall of the cavity were obtained, but the sloughs in place of being expectorated as they usually are in cases of ordinary phthisis, where the disintegration and separation takes place but slowly, were detached in large quantities and were drawn, partly by inspiration and partly by gravity, into the bronchi of the lower lobes of the lung. Thence they made their way into the smaller terminal branches and set up the mixed fibrinous and catarrhal pneumonia characteristic of this condition, with the well-known patches of caseous degeneration at the usual intervals. Other cases of a similar kind were shown, from which the lesson to be learned is only too obvious.

Another danger—also the result of this rapid and extensive sloughing—is met with in the intestine, where, contrary to the usual course of events, there was at the base of the tuberculous ulcer either perforation or extreme thinning which would have soon ended in perforation.

Beyond these more or less mechanical or gross pathological methods of extension, it must be borne in mind that, owing to the dilatation of the blood and lymph channels, especially where the cell reaction is not good, the way is opened up for the ready transportation of tubercle bacilli from the original foci to parts situated either near to or at some distance from them. Virchow found abundant evidence of this in a case of tuberculous endocarditis, a condition that is not very frequently met with. One of the most important lessons to be learned, however, is that a patient in an advanced stage of phthisis, in whom on account of imperfect nutrition and especially as the result of imperfect oxidation, the general tissue cells are in a condition of lowered vitality, an irritant or stimulant, such as Koch's lymph appears to be, set up a reaction of degeneration in place of increased vitality. In these cases, in fact, the lymph acts on the weakened cell as an extremely powerful irritant would on a healthy cell, the cells so powerfully stimulated being able to offer little resistance either to the attacks or to the passage of the vigorous tubercle bacilli.

In taking up this ground, we wish it to be most distinctly understood that we can as yet offer no opinion as to the effect these observations of Virchow's will have on the methods of carrying out Koch's treatment. We feel, however, justified in saying that such a careful and complete account of the anatomo-pathological changes met with in these tuberculous patients who have been subjected to it will prove of enormous value in drawing the attention of physicians and surgeons to the fact that such treatment requires to be used with care and discrimination, directly proportionate to the powerful action which this remedy appears to exert both generally and locally. This is especially the case in patients who, though not necessarily far advanced in phthisis as measured by the number and extent of the tuberculous areas, are nevertheless, by reason of im-

perfect nutrition, of weakened thoracic muscular system, or of a want of habit of expectoration, are totally unfit to be subjected to the risk of having set free in their organs or tissues masses of dead tissue in which active tubercle bacilli may be present in enormous numbers. Such patients, if inoculated at all, should be only so treated after a prolonged and careful nursing; whilst as regards many of them it can never be hoped that they will derive the smallest benefit from the treatment. It is evident, too, that in advanced cases of phthisis it can prove of little value, but for this Koch's own statement should have been sufficient to make every one fully prepared.

In conclusion, we would say that anyone who thinks of carrying out Koch's treatment should first make himself thoroughly master of Koch's original statements, which are calm to a degree, and are as unbiased as any man could expect those of an author of such a method to be. The method is still on trial, and those who wish to keep an open mind can only do so by a careful study of scientifically observed facts as they are placed before us.—Ed. *Brit. Med. Jour.*

THE PREVENTION OF SHOCK DURING AND AFTER OPERATIONS.

At the meeting of the American Surgical Association at Washington, in 1888, one of the subjects of discussion was the prevention of shock during and after operations.

The preventive measures proposed were simply such as any prudent surgeon adopts, viz.: Wait for reaction; calm the patient by a cheerful word; give stimulants before the anæsthetic; make anæsthesia short; operate as rapidly as practicable; dress quickly; avoid chilling the patient; after the operation apply dry heat; give liquid nourishment, with stimulants and laudanum, by the rectum; inject brandy subcutaneously; by the mouth give aromatic spirit of ammonia, and also black coffee and brandy; secure quiet, a horizontal position, and sleep; assure the patient that all is over and doing well. But in spite of all these precautions it was alleged that secondary shock is very liable to occur and prove fatal.

Long since, impressed with the dangers of shock in many modern operations, owing to the long continuance of the anæsthesia, the liability to chilling and to depression from the loss of blood, I have been accustomed, where time will permit, to prepare patients for operations by stimulation to the extent of semi-intoxication. The results have been most happy, especially with feeble patients whose condition has rendered the propriety of an operation very doubtful. The course which I pursue is to give the stimulant in hot milk, beginning from eight to ten hours before the operation. Such quantities are given, and so frequently, as to secure a state of happy indifference to the operation on the part of the patient. If the operation is to be at three o'clock in the afternoon, I give directions to commence at six or eight o'clock in the morning. I prefer whisky to brandy, owing to its slow and persistent operation over a much longer period.

If the patient is not accustomed to the habitual use of stimulants, I order an ounce of whisky every two hours in half a pint of hot milk. If at twelve o'clock, or even at ten, sufficient progress has not been made to render it quite certain that semi-intoxication will be secured at the appropriate time, I give an ounce of whisky in milk every hour during the remaining time. When the requisite effect has been obtained, the stimulant should be discontinued. In the case of habitual drinkers I have given two ounces every hour. It is important to give the stimulant in hot milk, which will furnish a large supply of easily-digested and readily-assimilated food, in a form most useful to sustain the vital energies during the critical period of a severe operation, or during a necessarily-protracted operation.

The patient thus prepared has suffused eyes, a flushed skin, a slow full pulse, and complete indifference to the operation, though perhaps previously extremely timid. Frequently he jests and sings when taken to the operating table. He is warmly covered except on the part to be exposed for the operation. The assistant who administers the anæsthetic is directed to suspend it as frequently as possible. It will be a matter of surprise to anyone who first administers an anæsthetic to a person partially or quite intoxicated by the foregoing means, to observe how quickly, and without a struggle, the patient comes fully under its influence, and how small the quantity required. The pulse remains at its normal standard throughout the operation, the breathing is quiet and regular, the skin continues warm and red, and without unusual perspiration.

During the twenty-four to forty-eight hours subsequent to the operation, the condition of the patient remains good. The pulse continues full, the skin natural, the respiration undisturbed, and the mental state is that of indifference, or hopefulness. Neither primary nor secondary shock occurs under such circumstances.

To prevent chilling, the patient should not only be protected by warm clothing, but the wound be douched with hot water containing the disinfectant. The exact temperature of the water is a matter of much importance, as the term "hot" is indefinite and misleading. In the haste of an operation the hand is often employed to determine the temperature of the water. This test varies somewhat with different individuals, as one person will shrink from placing his hand in water at a temperature which another may bear with little inconvenience. I have frequently tested the temperature of water in which an assistant could thrust his hand, though compelled to withdraw it instantly. This temperature does not exceed 150° F., but more often is 145° F. The hand I regard as a sufficiently good test for a temperature of 145° F. to 150° F. Nor should I care to apply water at a higher temperature than 150° F. to the wound. The late Dr. Varick, of Jersey City, who urged the use of hot water, advocated using water

"slightly" below the boiling-point on operation wounds. Water at that temperature would, however, be destructive to tissues, for in my experience water at a temperature of 150° F. will destroy living tissues if it is allowed to remain in contact with them. It can be used at this temperature as a douche only—that is, it must be dashed on the wound. When applied to a fresh wound the surface should be rendered of a dull gray color. The patient is usually instantly aroused by the heat. The best method of applying the water is by pouring from a pitcher, but not continuously; it should rather be dashed into the wound so that it will penetrate every recess. The effect of the hot water is also seen in the arrest of all oozing of blood from the wound, and this arrest of hæmorrhage is permanent and prevents secondary bleeding. The application of the dressings immediately follows, and as these consist of materials retentive of heat, there can be no chilling of the patient by the dressings.

During the past ten years I have pursued the above method of preventing shock, and in no instance has that complication occurred.—Prof. Stephen Smith in the *Medical News*, October 11, 1890.

For Intertrigo.—Wertheimer uses the following lotion for intertrigo, and speaks of the good effect often rapidly produced. He applies a compress wetted with the lotion and placed in contact with the part affected for an hour at a time, three or four times a day.

℞ Corrosive sublimate, - - 1 part.
Distilled water, - - 2,000 "

If the intertrigo becomes very severe he prefers the local application of phenol, chloride of lime, etc., and also finds lotions containing alcohol or iodine very serviceable.

Through Pullman Vestibuled Sleepers between St. Louis, Denver, Cheyenne, Ogden and Salt Lake City, via Missouri Pacific Railway. This is the only through car line between the above points and makes the trip in 67 hours. Ticket offices 102 North Fourth Street, and Union Depot.

Hot Springs, Arkansas.—In order to meet the heavy travel to Hot Springs, the Iron Mountain Route has placed in effect a double daily through sleeping car line between St. Louis and that point, leaving St. Louis Union Depot at 9:25 A.M., and 8:20 P.M. daily. Ticket offices 102 North Fourth Street, and Union Depot.

Galveston's Mardi Gras and Jubilee.—The securing of the Deep Water Harbor will be celebrated February 7, 8 and 9. Tickets will be on sale at half rates, via the "Iron Mountain Route," which saves twelve hours between St. Louis and that point, and a splendid opportunity is given of viewing the coming seaport of the Gulf of Mexico, and making investments. Ticket offices 102 North Fourth Street, and Union Depot.

USEFUL FORMULÆ.

Paraldehyde Emulsion.—

℞ Paraldehyde (Merck's) - - f ʒ j.
Pulv. acaciæ, - - - - ℥ ss.
Tr. quillayæ, - - - - f ʒ ij.
Aq. cinnamomi, - - - - m v.
Syrupi, - - - - - f ℥ j.
Aquæ, - - - Q. sa. d. ft f ℥ viij.

M. ft. Emulsionem. One ounce, the usual dose, equals one drachm paraldehyde. Recommended by Dr. F. C. Hoyt, St. Joseph, Mo. (*Med. Rec.*), as an efficient hypnotic, especially in elderly persons and patients with organic heart disease. Also for myalgic pains of light character and insomnia after debauch, etc.

Pettit's Eye Salve.—This preparation is said to have the following composition:

Morphine sulphate, - -	1½	grains,
Benzoic acid, - - -	4	"
Ammoniated mercury, -	48	"
Zinc oxide, - - -	64	"
White wax, - - -	64	"
Spermaceti, - - -	192	"
Olive Oil, - - -	512	"
Oil Rosemary, - - -	1	gtt.

Mix 1. a.

Western Druggist.—The New Idea.

Acute Gonorrhœa.—Schwimmer especially recommends the following injection in acute gonorrhœa:

℞ Salicylate of mercury, - - gr., 1-6.
Water, - - - - - ℥ iv.

The injections to be used three times daily. At the end of three or four days the discharge as a rule, became mucous in character, when the remedy is to be discontinued. For chronic cases he recommends the same drug in a strength of 5 centigrams to 100 grams of water.—*L' Union Medicale.*

Treatment of Chilblains.—Boetz, of Tokio, states that the treatment of chilblains should consist, first in washing with hot water, and second in applying to the surface the following mixture:

℞ Caustic potash, - - - gr.iij.
Glycerin,
Rectified spirit, - - - aa ʒvj.
Distilled water, - - - - ℥ij. M.

The preparation is generally not too irritating, and produces a cure in the space of two to three days.—*Ther. Analyst.*

Injection for Seat-Worms.—The *Annals of Gynæcology and Pediatry* quotes the following prescription to remove seat-worms:

℞ Tincture of rhubarb, - 30 drops.
Carbonate of magnesia, - 3 grains.
Tincture of ginger, - - 1 drop.
Water, - - - - 4 ounces.

The mixture should be warmed and used as an injection, repeating three or four times in twenty-four hours.

ORIGINAL ARTICLES.

REPORT OF A CASE OF TREPHINING FOR SEVERE HEADACHE.

BY T. F. PREWITT, M.D., ST. LOUIS.

Read before the St. Louis Medical Society, January 31, 1891.

Miss O. C., of Kansas, æt. 23, in fair nutrition, menstruation never regular, varying from three to six weeks and always scant; intelligent, of excellent memory, in the enjoyment of all her mental faculties and devoid of hysterical manifestations. At the age of 7 she received a blow on the head from a hammer at the junction of the sagittal and lambdoidal sutures, which produced unconsciousness for three hours. The wound, after considerable bleeding at the time, healed, and no adverse cerebral symptoms appeared for several years. Previous to the receipt of the injury and for five or six years thereafter, she suffered from conjunctivitis attended with considerable pain, from which she was often quite blind for three months at a time. During an attack of measles, at the age of 14 years, she became totally blind in the left eye and has thus remained, while vision with the right continued to improve; at that time the eyes were comparatively free from pain, occasionally there was pain in the head, which history persisted during the succeeding nine years. While engaged in teaching in 1889, and without obvious cause, the pain in the head became much more severe. Seemed always to obscure the site of original injury as a *point d' appui*, and thence to radiate over the head, especially to the left as the definite destination, and thence vaulting over to the right eye, obscuring its vision. The pain in head continued to increase in severity, though with distinct intervals of exemption, the latter even of shorter duration. During the paroxysms of pain she often had attacks of vertigo, nausea and even vomiting; at times became unconscious, frequently fell to the floor in the school-room and also when in the open air. In January, 1890, the right eye became occasionally blind during the attacks of pain in the head, but the march of the pain was invariably the same, *i. e.*, from the site of injury to the left eye, and thence to the right; the more severe the pain the greater the the degree of blindness in the latter, and the longer its continuance. This, however, would pass off in periods of time varying from a minute or two to that of several hours, but almost always there followed a severe headache. Notwithstanding these various forms of disability she heroically persisted in the pursuit of her vocation, and to the satisfaction of her superiors. She sought relief of physicians in Denver for her eyes, the external appearance of which was perfectly normal, but in April lost entirely the sight with the right eye. She then ceased all treatment for the eyes and continued treatment only for invigorating the general health. In July, 1890, she came under the care of a competent oculist in Kansas City, by whom, as well as by others, the ophthalmoscopic conditions were declared absolutely normal. Under his treatment she remained till she reached St. Louis Dec. 17, and on Dec. 18 she became my patient. Complaining of great pain in the head with exacerbations, varying at different times in location. She had also great pain in the eyes, alternating with that in the head. When severe in one, it would be less in the other. Upon examining the cranium a well-defined cicatrix of circular shape, of the scalp could be seen at about the junction of the sagittal and lambdoidal sutures with but slight, if any, indications of depression of the skull.

The history of the patient and the present symptoms pointed to the relationship and definite connection between the original injury and the cerebral disturbances manifested, and fully justified the use of the trephine. These disturbances indicated depression of the inner table of the skull, or a thickening of the bone from chronic ostitis, or, possibly, the existence of a tumor. The absence of motor disturbances which, if present, might have thrown light upon the conditions referred to, was readily accounted for by the remoteness of the injury from the motor area.

On the morning of the 20th, after having thoroughly shaved the entire scalp, the operation was performed in the presence of Drs. Bremer, Tuholske, Englemann, Brokaw and others.

A flap about four inches in diameter was raised; its inferior free border being about an inch and a half above the occipital protuberance, with parallel incisions carried sufficiently far forward to thoroughly expose the site of injury. As this was immediately over the longitudinal sinus, and it being possible that spiculæ of bone from the internal plate might be imbedded in the walls of the sinus, buttons of bone were first removed from either side and then the intervening bridge of bone was chiseled away, thus avoiding danger of lascerating the sinus. No spicula of bone, however, was found; in fact, no evidences of fracture were discovered. The bone was greatly thickened over the whole area, and apparently also for some distance beyond. A surface of dura mater two and a half by two inches was now uncovered. This neither bulged into the opening nor perceptibly pulsated, but resistance to the pressure of the finger was marked. A fine needle was introduced at several points without discovering any evidence of tumor. A portion of dura mater was then incised and raised when a considerable subarachnoid effusion escaped. The fine needle was again thrust into the brain substance in several directions but without diagnostic results.

The portion of dura mater which had been raised was now simply replaced without stitching, free drainage of the serous effusion being desirable. A few strands of catgut were placed in the wound, and left in one cor-

ner for drainage, and the flap stitched in place. Iodoform and bichloride gauze, absorbent cotton and a bandage completed the dressing.

In the course of the afternoon of the same day I received from her physician, Dr. W. J. May, the following note:

Dr. Prewitt; *Dear Sir.*—The case you trephined to-day will surprise you, I presume, when I tell you that in the last hour the eyesight has been entirely restored to the left eye—the eye that she has been practically blind in for the last nine years. I know I am correct, for I blindfolded the good eye and had her count my fingers at a distance of ten feet. W. J. May

Having called an hour or two later, she greeted me with the exclamation, "Doctor, I see you." Covering her right eye at the same time with her hand, and stated that she felt as if a heavy weight had been removed from her brain. No rise of temperature occurred; on removing the dressing a week later the wound was found united by first intention, at the point of drainage. Some pain in the head and eyes continued, but of less severity; these symptoms have continued to decrease until now she passes two or three days at a time completely free from pain. The sight of the left eye remains good.

She is cheerful, vivacious, and the face has lost its former expression of anxiety and suffering. When she sits up for a long time or sees much company she suffers more or less with headache; indeed a certain amount of excitability and over-action in her manner and speech are evident at times, which suggests the imminence of disorder of the intellect unless the utmost care is observed for months in her treatment.

I have advised her to avoid society and every possible source of excitement for six months, at least.

The day after the operation a mercurial purge was administered, and bromide of potash in ʒss doses was given every 4 hours, and after a few days the iodide of potash and bichloride of mercury pills (.01 gr.) were given three times a day in addition to the bromide. In reviewing the case, I think it would have been better to remove a still greater portion of the thickened skull.

It must strike everyone as remarkable that such prompt relief should have followed the operation, when it is remembered that the conditions present were the result of causes in existence for more than 15 years.

A CASE OF ABORTION.

BY W. B. DORSETT, M D., ST. LOUIS.

Read before the St. Louis Medical Society, Jan. 24, 1891.

A case of abortion followed by septic endometritis, salpingitis, peritonitis, abscess of each ovary, laparotomy, excision of both ovaries—death.

The specimens presented are the ovaries and Fallopian tubes of a patient, whose history is as follows:

M. W., æt. 18. Single; prostitute; aborted at the third month, one week prior to her admission to the Female Hospital, October 8. The abortion was brought on by indulging in dancing and violent exercise. On October 9, the uterus on examination was found to be enlarged and very tender to the touch; and from the vagina was issuing a very offensive discharge. Upon being placed upon a table and a more thorough examination made, pieces of decomposed placenta were found in the neck and uterine cavity; these were removed, the uterus thoroughly curetted, and many shreds of membrane scraped out; a thorough douching of the endometrium was made and the uterus packed with iodoform gauze.

This operation, except the packing, was repeated two days afterwards, and four vaginal douches daily of bichloride of mercury 1:4000 were ordered.

The patient apparently convalesced rapidly and was soon able to be about. On November 13 she was persuaded by former associates to leave the hospital. After reaching the station, which was at some distance, she felt bad and, when she arrived at the house intended, fainted on the door-step.

She was returned to the hospital November 16; on the next day she was placed upon the table and again examined. The Fallopian tube on the right side was found considerably enlarged and very sensitive; some peritonitis was detected and thickening also in the left side. Hot vaginal douches of a solution of bichloride 1-4000 were ordered twice daily, and revulsives to the abdomen over the seat of pain. On the following day the patient felt better, and continued apparently to improve for two or three days, but with no decrease in size of the tumor. On November 19 another vaginal examination was made; the left tube and ovary were found in about the same condition as that of the right side. That antiseptic vaginal douches were ordered to be continued, also counter-irritants; but only temporary relief was afforded. And she not only did not improve but became more restless and gave evidences of progressive sepsis. A laparotomy was deemed advisable, and was performed on December 20.

The right tube and ovary were found in their normal position, but firmly attached to the surrounding structures, which adhesions were with difficulty broken up and the organs released. In drawing up the ovary it ruptured and quite a quantity of pus was emptied into the peritoneal cavity.

The left tube and ovary were found in a much worse condition, and more extensively attached; in several places firmly adherent to the floor of the pelvis and to the descending colon as far down as the beginning of the sigmoid flexure. The peritoneal cavity was thoroughly washed out with sterilized warm water. The operation was necessarily prolonged, on account of the adhesions. The patient was in a tolerably fair condition when put to bed. On the following day she began to sink, and died in the afternoon, about 28 hours after the operation.

An autopsy was made shortly after death and revealed general peritonitis, with very extensive adhesions. The temperature never exceeded 102°, and after the operation it became normal, and so continued up to within four hours prior to death.

CLINICAL LECTURE.

TUBERCULOSIS OF BONES AND JOINTS.

BY EMORY LANPHEAR, M.D., KANSAS CITY, MO.

Surgeon to East Side Dispensary; Orthopædic Surgeon University Medical College.

Delivered before the class of the University, Dec. 8, 1890.

GENTLEMEN.—The statement of Koch at the last International Medical Congress that from one-third to one-half of all cases presenting to the surgeon for operation will be found to be suffering from tuberculosis, is a startling one, yet doubtless correct. All surgical diseases formerly regarded as "scrofulous" have been proven to be tuberculous; the absolute identity of scrofula and tuberculosis is fully established; there are those who do not believe that tuberculosis of bones and joints may be traced to the bacillus tuberculosis, but those who do not are, as Peters says, "such surgeons at home and abroad who do not enjoy the privilege of closely following the rapid advances of pathological investigation." Modigliano, of Pisa, has proven beyond question, by experimentation, that the virus of scrofula is but an attenuated form of that of tuberculosis. That a large proportion of orthopædic cases can be assigned to the same cause is now acknowledged by all leading surgeons and is well illustrated by these cases:

CASE I.—Harvey M——, colored, æt. 9, is the case in which we found tubercular hip-joint disease with such destruction of the shaft of the femur that I made the Wyeth bloodless amputation at the hip (the fifth time the operation had been done) before the class some weeks ago. Healing is perfect and the boy is gaining two pounds each week in weight. The case illustrates the points that joint tuberculosis is as a rule purely a local trouble and that the tendency in tuberculosis of joints and bones is always toward recovery.

CASE II.—Willie C——, æt. 7, presents the typical history of tuberculosis of the ankle-joint; he received a slight injury to the ankle two years ago, from which he apparently recovered, but soon a swelling of the joint occurred, with some pain, and in spite of all treatment the trouble has persisted and now gives all the symptoms of tubercular synovitis including this protruding mass of tubercular tissue. He will be treated with intra-articular injections of iodoform, and fixation of joint.

CASE III.—Chas. P——, æt. 32, gives us a beautiful picture of tubercular degeneration of the wrist with caries of bones and formation of sinuses—due to slight traumatism; again an instance of the *locus minoris resistentiæ*. At a future clinic I shall open the joint and clean out all of the affected tissues.

CASE IV.—Chas. C——, æt. 12, is a fine specimen of so-called "hydrops articuli"—doubtless a tuberculous synovitis. He will have the joints thoroughly irrigated, after the manner of Koenig.

CASE V.—Nadine S——, æt. 14, colored, has had this tuberculous disease of the vertebræ (or at least we presume the disease and its consequent spinal curvature to be a local bone tuberculosis) for some months. By fixation and constitutional treatment we should get recovery with slight deformity. A plaster-of-Paris jacket will now be put on, though if the patient could afford it the brace designed by Prof. C. F. Stillman, of Chicago, would be better.

CASE VI.—Arthur McP——, of Kansas, a private case, has kindly consented to have an operation performed before the class for the relief of the marked deformity of the knee—dislocation backward with great contracture, the leg being flexed to more than a right angle. This is the result of "tumor albus"—white swelling—tuberculosis of the knee-joint, from which he suffered years ago. Before the operation we will briefly review the subject of tuberculosis of bones and joints.

HISTORY.

Until a very short time ago the tuberculous character of these various bone and joint troubles was not recognized. It is little more than a decade ago that Karl Kuester pointed out the frequent presence of miliary tubercles in the fungus granulation of "white swelling." The matter was carefully investigated by Friedlaender, Volkmann, Koenig and others, so that "even before Koch's discovery of the bacillus tuberculosis in 1881, the tuberculosis of bones and joints was already established as a distinct form of disease."

ETIOLOGY.

The presence of the bacillus tuberculosis is the essential cause of the morbid manifestations; but tuberculosis of the joints and of bones is always secondary, there must be depots in the lung or lymph gland before these structures can be affected, though the point of primary invasion cannot always be discovered; and if so, removal of the diseased bone or joint may completely eradicate the disease.

Traumatism is an important element in the causation; and this injury is nearly always slight—if it be of sufficient violence to cause intra-articular fracture local tuberculosis does not follow. The slight traumatism, as Max Schueler has proven by experiment, causes a localization of the bacillus, through the circulation, to the point injured; the result is a tuberculous synovitis or panarthritis.

Tuberculosis is not hereditary; it always comes from infection.

PATHOLOGY.

To quote Fenger: "As a general characteristic of articular and osseous tuberculosis it must be stated that

it belongs to the benignant chronic forms of disease; that is, it lasts for years and years, has a tendency to spontaneous recovery, little inclination to generalization and consequently to destruction of life, as compared with the acute forms of acute tuberculosis of the internal organs, or even of experimental inoculated tuberculosis." This radical difference from the fatal tendency of tuberculosis in other parts of the body is explained by Baumgarten by the fact of a difference in the character and activity of the tubercle. There are three forms of the miliary tubercle:

a Lymphoid celled tubercle (called "small celled tubercle" by Virchow)—rich in bacilli, excessively malignant, and found in acute miliary tuberculosis.

b Mixed tubercle of lymphoid cells and epithelioid cells, with fewer bacilli, of less malignant character, and found in chronic tuberculosis.

c Epithelioid and giant-celled tubercle, few bacilli, no lymphoid cells, quite benignant and found in localized tuberculosis as of bones, joints, lymph-glands and in lupus vulgaris. It is with this form that Koch secures his curative results by his lymph-inoculations; and the Koch treatment does not seem to give any satisfactory results as yet in conditions dependent upon the existence of lymphoid-celled tubercle, and but little in mixed lymphoid and epithelioid.

Tuberculosis of bone is usually found in the cancellous substance of the long bones and in the short and flat; rarely in the medulla of the shafts, excepting those of the phalanges, and in children the metacarpal and metatarsal bones. The veretebræ are most frequently involved of all bones; then follow, according to Billroth, the knee, cranium, hip, etc.

Koenig describes three forms of osteo-tuberculosis.

1. *The granulating focus.* This may be either single or multiple, in round or cylindrical cavities, from the size of millet seed to that of a hazel nut, containing grayish-red, soft, living granulation tissue; if coagulation necrosis have occurred, yellowish caseous matter or tuberculous pus. Very fine spiculæ of bone may be found. In the granulation tissue will be found the epithelioid and giant-celled tubercle and a very small number of bacilli. "The wall of the cavity is either soft, when rarefying osteo-myelitis has taken place, significant of destruction and extension; or sclerotic, when an osteoplastic osteo-myelitis surrounds the focus, showing a tendency to localization and cicatrization."

2. *The tubercular necrosis.* If the extent of the tuberculous inflammation be great the bone is not absorbed but remains in the cavity as a sequestrum, which may be yellowish-white or grayish-red—the former if the contents of the Haversian canals or medullary spaces be dead; the latter, if living. There may be surrounding it a thin layer of granulation tissue, when it may be very firmly embedded, or there be tuberculous pus around it.

3. *The tuberculous infarct.* This "has the characteristic conical shape of infarcts in other parts of the body, with the apex in a proximal and the base in a distal direction. It represents the territory of an artery and suggests embolism. Large infarcts, then, must require either a larger embolus or in addition to the embolus, arterial thrombosis, from the place of the arrest of the embolus. This seat is usually a little inside of the cortical substance of the bone, and may be overlooked if the bone is not sawed through. The line of demarcation forms slowly as a furrow surrounding the dead area, the central portion of which may remain in connection with the living bone for a long time—a year or more—even in a joint apparently on the way to recovery." (Fenger.)

So long as these changes are confined to the bone alone the disease is of comparatively minor importance, as it gives little or no functional disturbance; but there comes a time when it does give rise to much trouble, because it extends either to the periosteum and soft parts, or to the joints. Then the symptoms become manifest and grave changes rapidly take place, especially when the joints are implicated. As soon as the rupture occurs the bacilli are poured into the joint with the immediate supervention of tuberculous synovitis or arthritis. That this is frequent may be inferred from the statement of Koenig, that in surgical clinics the surgeon will meet with 100 cases of tuberculosis of joints to one of other origin, as gonorrhœal, septic, syphilitic, rheumatic or osteo-myelitic; I think this is quite true of Europe, but here we have less tuberculosis and the proportion will not hold good; yet if you will recall all the cases of joint trouble I have exhibited to you this year you will be surprised to find at least two-thirds of tuberculous origin. Whenever the bacillus invades the joints we have one of four conditions set up:

1. Pannous hyperplastic synovitis.
2. Tubercular hyperplastic synovitis or papillomatous plastic synovitis.
3. Granular or fungous hyperplastic synovitis. (Hueter.)
4. Tuberculous articular empyema.

As to the pathological changes present I quote from Fenger:

1. "*The pannous hyperplastic synovitis.*—The synovial membrane is moderately thickened. From the border of the cartilage a thin muscular layer of granulation tissue creeps in over the surface of the latter, so much so as to sometimes cover the larger part of the surface and unite with the cartilage, which gradually becomes transformed into connective tissue. The tubercles are usually not visible to the naked eye.

2. "*The tubercular plastic synovitis or circumscribed nodular tuberculosis of the synovial membrane.*—The tubercular fibroma is characterized by the development of a subserous tumor of the size of a walnut or larger, protruding into the joint, and filling, for example, the supra-patellar recess of the knee-joint, with pannous synovitis of the rest of the cavity. Such a local tuberculosis is amenable to extirpation of the tuberculous tumor, followed by recovery. The papillomatous plastic synovitis

is a diffuse form of hyperplastic tuberculosis, the whole inner surface of the synovial membrane being covered with sessile or pedunculated papillomatous growths, small or rather uniform in size, some of which may become detached and constitute the so-called rice-bodies.

3. "*Diffuse granulating synovial tuberculosis.*—Here the synovial membrane is considerably thickened, hyperæmic, with or without visible tubercles, always accompanied by invasion of the para-articular tissues and ligaments of the joint. Thus is formed the thick, œdematous mass of tissue, usually of a gelatinous appearance, in which coagulation necrosis will cause, in the more dry forms, islands of cheesy matter; in the more liquid forms, islands of pus—small multiple abscesses.

4. "*Empyema articulationis tuberculosum.—Cold abscess of the joint* (Koenig.)—The inside of the capsule is covered with loosely adherent tuberculous membrane, similar to that in tubercular abscesses, so loosely connected with the capsule as to permit its being scraped off. The remaining synovial membrane is diffusely infiltrated with miliary tubercles, but only slightly thickened if at all, because of the non-invasion of the para-synovial sac.

"The articular surface of the bone, after the disappearance of the cartilage, presents the following appearance: In the dry form, a layer of not very vascular connective tissue covers the surface and connects it with the opposite similarly transformed surface. In the more moist and suppurating forms, a layer of miliary tuberculous tissue covers the bone with visible yellow miliary tubercles, extending usually only a short distance from the surface. Thus the whole head of the femur, the acetabulum, etc., is gradually destroyed."

Symptoms.

If there be a simple tuberculous hydrops we find a painless, intra-articular accumulation of fluid, recurring again and again if removed; later on, evidences of thickening of the capsule. Rice-bodies, if present, give a peculiar friction sound when the joint is palpated. There is never any fever.

If the disease has assumed that form characterized by the presence of tubercular fibroma, these sessile, somewhat movable masses may be felt after aspiration.

The fungous arthritis is by far the most common, whether the joint trouble be primary or secondary to osteitis. The symptoms are, if the joint be exposed as in the knee: Swelling, heat, tenderness and joint-fixation; if the trouble be deep, as in the hip, the characteristics are: Restriction of motion, pain and deformity.

1. *Swelling.* This may be in the bone and soft peri-articular tissues—not wholly within the joint. Synovitis usually presents a swelling, and if the joint be the seat of primary trouble this swelling, accompanied by an increasing tenderness and gradual limitation of motion, may be the first symptom to attract attention; then bone enlargement appears and the condition is practically the same as if the disease had begun in the usual way—in the bone. In most instances the joint will have lost its definite contour; later the swelling becomes pronounced, the overlying skin anæmic, and still later there may be a boggy infiltration, and a semi-solid mass may be felt projecting from the joint (as in the ankle before you)—hence the name "fungous arthritis."

2. *Heat.* This may often be detected if the joint be superficial, and is a symptom of importance because whenever the disease is quiescent it is absent, but if things are not right it appears; especially is it of import as an indication for treatment—it is always an urgent demand for protective measures so long as it remains. If limited to one joint fungous arthritis does not cause any rise in the body temperature, but a register of 100° or 101° in the evening, with a normal morning showing, is often met, and means, as Koenig has pointed out, the formation of a tubercular peri-articular abscess. High fever always points to invasion of the joint by the streptococcus pyogenes aureus or the staphylococcus pyogenes—mixed infection with pus microbes.

3. *Tenderness.* This is usually present, but not to a marked degree as it is prevented by muscular spasm holding the joint rigid and immovable. If the morbid process be located in the lower extremity lameness is the indication of its existence, and is an almost constant symptom, though the subject may not complain of pain; of course the degree varies according to the joint affected. Even when the disease is nearly cured the slightest indiscretion is likely to bring it back with increased heat and pain.

4. *Fixation.* Muscular fixation is almost always present as a symptom of chronic and tuberculous osteitis and arthritis, and the persistent spasm of the muscles in many instances produces the characteristic deformities, as in the flexion and subluxation of the knee to be operated upon. The restriction of motion is perhaps best illustrated by the pathognomonic symptom of hip-disease—tilting of the pelvis when flexion of the thigh is attempted.

5. *Pain.* Except during acute exacerbations pain is not severe, not always present and of extremely variable intensity; it can usually be produced by jarring the affected part. As a rule it may be said that the more active the destructive process the greater the pain. Night-cries are frequently observed, especially in tuberculosis of the hip. Intense pain on movement may mean large intra articular osteal foci and extensive destruction of joint structures. A sudden and violent attack of pain in osteitis indicates rupture into the hitherto intact joint cavity.

6. *Deformity.* This may be little or great, and varies according to the articulation implicated. Atrophy of the muscles is usually present after a time and often reaches a serious degree—simply from non-use. Contractions, dislocations, lateral deviations, etc., indicate the destruction of the ligaments and articular surfaces. Invasion of the peri-articular tissues gives rise to pe-

culiar deformities like the characteristic spindle shape often observed in the knee and elbow.

Cold abscess of the joints—tubercular articular empyema—or "pyarthrosis tuberculosis" is rare. It is easily recognized and usually fatal, as general acute tuberculosis supervenes sooner or later. But abscesses often appear as purulent distention of the joint, and forming sinuses, discharge for a long time. Again, as in hip-disease, they may occur in the peri-articular tissues. Like psoas abscess they demand aspiration or opening and injection of iodoform.

Treatment.

Hofmokl is of the opinion that operative treatment should be reduced to the minimum; in young patients he simply opens the joints, evacuates the pus, puts in a drainage-tube, immobilizes the joints and gives constitutional treatment. I am of the opinion, and have recently carried it out in a number of cases, that where there is a possibility of removing the tuberculous tissue —there being sinuses already present—it is best whenever safe to take it away and thereby cure the disease, at the same time preventing the general infection which is liable to take place. In adults thorough cleaning out of the joints, resection or amputation is nearly always justifiable when milder methods have failed; here the after-treatment must consist of absolute asepsis, continued rest and constitutional measures.

When there is pus formation yet no necessity for immediate operation I resort to the injection of iodoform. In the case of the boy I now make the second injection (the first having been made some time ago and with decided improvement), using a large needle and throwing into the joint cavity nearly an ounce of a solution having the composition:

Iodoform, - - - one part.
Glycerine, - - twelve parts.

This is prepared by triturating the iodoform with a few drops of alcohol and then adding the glycerine. A formula now used in Germany is:

℞ Iodoformi, - - part. j.
Olei olivæ, - - part. x ad xx.

Misce tere bene. A large injection tube is to be used, and from one dram to one ounce injected and left. This is to be repeated about every four weeks; in from three to four months a cure can be effected in many cases.

The iodoform treatment is not an experiment; it is a decided success. In Carl Braun's clinic 80% of all cases recover under this treatment, and recently Krause, of Halle, has reported good results in sixty bad cases. In the knee-joint he secured cure with mobility even in patients beyond 40 years of age. He says there is evidently from the very first infection cicatrization of the soft parts, with shrinking and tendency to cure. The general condition improves rapidly. If there be abscesses they are evacuated wtth the trocar and the cavities irrigated with boric acid solution and then iodoform injections made. Should no abscess exist injection is made directly into the joint; (he uses a trocar, but I prefer the large aspirating needle you have seen me use). After the injection gauze is placed around the joint, already sterilized, and passive motion and massage used. In the wrist the trocar is entered at the processus styloidei and ulnæ; in the elbow at the capitulum radii; in the shoulder at the junction of the acromion with the spine of the scapula, or external to the coracoideus; in the hip at the great trochanter; in the knee in the usual way, and in the ankle close under the malleolar process of the tibia and fibula.

In tubercular synovitis where there is no fluid in the joint, parenchymatous injection may be practised, thirty minims to a dram being thrown into the fungous growth with a strong syringe twice a month, the patient being allowed to go about, though very often after the injection the joint is so very painful as to necessitate lying in bed for some days; a rise in temperature, too, is not infrequent.

As to other conservative measures, you have seen me apply fixation dressings with varying degrees of success. And in one instance you will remember that I opened up the sinuses about the ankle-joint and filled the cavity with a mixture of

Methyl violet ("pyaktanin"), - one part,
Starch, - - - five parts;

and that after but a dozen or less applications the discharge ceased, the sinuses closed and motion returned to a joint which I told you at the first examination would demand a resection. Ordinary violet aniline, which as now manufactured is wholly innocuous, was employed and the application made every third to seventh day.

In the case of simple tubercular hydrops articuli puncture and withdrawal of the fluid, followed by rest, will possibly effect a cure. If not we may then open the joint, inject our iodoform emulsion, establish antiseptic drainage and thus secure good results, probably; in most cases, however, we must expect the simple trouble to be superseded by the more severe and destructive forms of tuberculosis, for which in adults radical operative measures are indicated, particularly in the upper extremities. In children the most conservative means must always be adopted, even if there be suppuration and disorganization of the joint, but in adults I believe operative measures are indicated in nearly all cases, except prior to suppuration and destruction of the joint. In most instances of joint tuberculosis in children by internal medication, intra-articular injection, immobilization, etc., good results can be obtained by patience; as *dernier resort* amputation or resection must be adopted. We will now proceed to the operation.

Scarlatina.—Prof. DaCosta advises as a prophylactic for those exposed to scarlatina, acidum carbolicum, gtt. j., three to four times a day, in addition to antiseptic gargles for the throat and antiseptic baths for the whole body.

REPORT ON PROGRESS.

DISEASES OF THE NERVOUS SYSTEM.

BY FRANK R. FRY, A.M., M.D., ST. LOUIS.

STRYCHNINE IN OPIUM POISONING.

In the *University Medical Magazine*, Jan., 1891, Clara T. Dercum, M.D., gives her experience with the use of strychnine in a rather desperate case of opium narcosis. There are several items in the account that attract our attention.

She says: "In looking over the literature of opium poisoning I can find no record of strychnine as an antidote." About two years ago I read a communication to the Medical Press Association of this City on "Some of the Uses of Nux Vomica and Strychnine," in which I alluded to the antidotal use of strychnine in opium poisoning. The article appeared in the REVIEW. I cannot now lay hands on the issue containing it. No doubt the Editor of the REVIEW can, and I would be obliged to him if he would cite the data there given.

[The communication to which Dr. Fry refers appeared in the WEEKLY MEDICAL REVIEW of Feb. 23, 1889, and contains the following reference to the use of strychnine in opium poisoning.

"Dr. G. A. Gibson in *Practice* for December, 1888, presents a good argument for the use of strychnine in poisoning from narcotics of various kinds. He condemns enforced walking and other measures that have a wearing or exhaustive effect on the vital powers, the central nervous system. Instead, he recommends that 1-100 to 1-50 of a grain of stychnine be given subcutaneously at intervals of an hour or so, until a proper quantity is used, as indicated by the patient's breathing, etc. Of course, discretion must be used in exhibiting the drug under such circumstances. But I think Dr. Gibson's position is a good one to take.

I remember to have seen, not infrequently, in hospital practice,patients who had taken large doses of opium, walked in a semi-nude state for the greater part of the night or day up and down a long corridor, where at convenient distanced were placed relays of nurses, or assistant physicians armed with switches or wet towels to flagellate the poor victim until his unprotected skin was red and blue. It occurred to me, even then, that without the help of a narcotic or other means, such treatment was calculated to kill patients. No doubt it has killed some."—Ed.]

Before resorting to the use of strychnine, Dr. Dercum used atropine in a thorough manner. She says:

"In order that the thorough trial made of the atropine may be appreciated, let us sum up the various doses given and their frequency. During the first two hours one-ninety-sixth of a grain was injected hypodermically every fisteen minutes. During the succeeding four hours this dose was increased to one-forty-eighth of a grain and repeated at the same intervals. Finally, during the next six hours one-thirty-second of a grain once an hour. The entire amount administered equalled nearly five-eighths of a grain."

Of late the practicability of the use of atropine as an antidote in cases of grave opium narcosis has been questioned by high authority. The question being whether if given in suitable quantities to successfully antagonize the opium, there is not added an additional danger from its toxic action, which we are not warranted in risking with no better clinical evidence than we have of its value when used in this manner. I confess that I have not yet been converted to this view of the matter. Yet, individually, I have never seen results, in a considerable number of cases observed, to make me enthusiastic about insisting on its being invariably employed. I think, in view of what evidence I have heard, including this valuable bit of Dr. Dercum's, I would be more inclined to rely on strychnine than atropine.

She thus describes the condition of the patient when she began the use of the strychnine.

"Complete relaxation of the muscular system, with puffing respirations which numbered only two and three per minute and which were extremely shallow. Each breath she drew we expected to be her last and death seemed near at hand. Atropine had been pushed until its full physiological effects had been secured, and even then we persisted in its use without any obvious results. Under these circumstances, I think, we are forced to attribute our success to strychnine, as it was only after its use that any improvement became apparent; in fact, until its administration, the case was slowly but surely progressing toward dissolution. However, the atropine probably antagonized the action of the opium to some extent. Sleep seemed delayed by its use, though it did not prevent the final onset of deep coma, nor did it prevent the progressive paralysis of the respiration. The pulse during the whole time was full and rather strong, and after the use of the atropine it increased rapidly from forty-five to one hundred per minute, which rate was maintained throughout."

Dr. Dercum, as she confesses, had never heard of this use of strychnine and she thus explains how she came to employ it.

"I now conceived the idea of giving her strychnine, hypodermically. My attention had been particularly called to the drug as a powerful respiratory stimulant by the paper on "Anæsthesia," which was read by Dr. Horatio C. Wood, of this city, before the Tenth International Medical Congress, at Berlin, in August of last year. From the experiments made at the laboratory of the University of Pennsylvania, it was shown that in dogs, in which respiration had entirely ceased, during chloroform or ether narcosis, the injection of strychnine into the jugular vein produced at once large, full and rapid respiration."

With such facts as the basis of her plan of action, she deserves much commendation for having so consistently and courageously persevered in giving the drug. She gave it in one-sixteenth grain doses every

hour until seven doses were given. When the patient was improving there was some twitching of the muscles which for a short time made the attendant uneasy but this soon subsided and there was no further inconvenience from the use of the strychnine.

Syphilis of the Nervous System.

Any one who has studied even slightly the pathology of syphilis of the brain and cord is constantly on the look-out for anything that seems to throw light on some unsettled but important points of the subject. I have read with some interest an article in the January number of the *Jour. of Nervous and Mental Diseases*, by E. D. Fisher, M.D., of the Medical Department of the New York University. I quote a few paragraphs of it:

"Oppenheim in a recent article states that in cerebral syphilis, in the majority of cases, the meninges are involved, and that the base is more often affected than the convexity. We have then a meningitis diffusa syphilitica. Post-mortem it gives the appearance of a mass of paraffine, involving the intra-peduncular space, Sylvian fissures, optic chiasm and the cranial nerves."

"Connective-tissue growths extend into the cortex; but in this situation it is not of much importance as in other regions, as, for example, the motor areas; the cranial nerves appear grey and swollen from the infiltration of the new growth into the nerve sheath and later into the nerve fibres. This is especially frequent in the optic and third nerve.

"The arteries are always affected, the adventitia being infiltrated by round cells from the meninges. The interna becomes thickened and obliteration of the vessels occurs, either by consequent narrowing of the lumen, or by thrombosis. Softening and hæmorrhage into the brain substance often occur, more often due to endarteritis. In disease of the vessels, independent of meningitis, which often occurs, the granulation-tissue growth may originate in the interna or media.

"The pathology of syphilis of the cord is similar to that just given of the cerebrum. Juergensen believes it to be almost secondary, *i. e.*, that we have a descending lesion, a cerebro-spinal meningitis. We find usually a diffuse meningitis, although not infrequently a circumscribed form, resembling them in its symptomatology a tumor or gumma. Cell infiltration takes place into the cord after following the course of the arteries, so that in many cases it would appear as if the initial lesion was in the neuroglia, with secondary involvement of the nerve tracts. Adamkiewicz, at least, maintains this theory in reference to the primary affection in tabes dorsalis, which is often specific in origin.

"Oppenheim regards cerebro-spinal meningitis diffusa as one of the most frequent diseases of the nervous system. In the cord also we have endarteritis independent of meningeal affection. The nerves, both cranial and spinal, are very often secondarily involved."

The Influence on the Nervous System of the Extirpation of the Thyroid Gland.

S. Antokratoff.—The animals which had been operated on after the second or third day after extirpation of the gland exhibited a certain heaviness and want of activity and a marked disposition to remain lying down; their gait was a little unsteady and clumsy, their hind legs were spread wide apart, they could not sit down all at once and they did so with difficulty—as though it cost them an effort to bend their legs. At times muscular rigidity was observed, their joints only bent with difficulty. Fibrillary contractions of the muscles took place, recalling Ewald's metaphor of a field of wheat which had been stirred by the wind. On the third day the tremor spread all over the body. The animal ate and drank sparingly and passed water frequently. The muscular tremor was soon followed by an epileptic attack with involuntary defecations, nystagmus, profuse salivation and difficulty of breathing, which ended in death.

The tendon reflexes, at first exaggerated, were finally weakened. Death took place very suddenly or with gradual renewal of the above described symptoms.

The galvanic excitability of the periphreal nerves in animals is usual after extirpation of the thyroid gland, but sometimes it is diminished. The electrical excitability of the psycho-motor centers after the extirpation, when all the pathological symptoms have attained their maximum, was found to be exaggerated.

The author explains all the clinical symptoms which follow the extirpation of the thyroid gland in animals as an altered nutrition of the nervous system. The clinical picture closely resembles tetanus in all its symptoms.

On making a microscopic examination of the brain and spinal cord of the animals who had died, the author found only a change in the grey matter, which had a cloudy appearance and was infiltrated with leucocytes; the change in the cord was more marked, and went so far as degeneration and vacuolisation of the nerve cells. The author concludes from his researches that all this complex group of symptoms is due to suspended function of the thyroid gland. As to the true character of the function of this gland, it is at present an open question. The author believes that in the abscence of the gland some unknown poison accumulates in the organism especially acting on the nervous system, and that, therefore, the function of the thyroid gland is to neutralize this hurtful material.—*Brain.*

Changes that Take Place in the Nervous System under the Influnce of Peripheral Irritation.

Iodovsky.—Dogs and rabbits were used by the author for experiment. He irritated the following nerves: The vagus, the sciatic, the intercostal and great auricular. He used electricity and traumatism as nerve irri-

tants. The irritant action lasted from seven to twenty days. The author found that the central portion of the irritated nerve remained intact, but grave changes were found in the ganglionic nerve cells; vacualisation was noted, both central and peripheral coagulative necrosis, in some cases infiltration of the ganglionic connective tissue with round elements, as well as congestion of ganglionic vessels.

The author admits that in consequence of prolonged peripheral irritation impulses transmitted by the intact portion of the nerve or central ganglion cause an excess of expenditure of vital force in the nerve cell of this ganglion, rendering it impossible for the supply to meet the demand, although the nutritive matter is not lessened in quantity. As an outcome of this excess in expenditure of functional activity, we have a series of trophic changes followed by death of the cell. The lesion in the central cell resulting from peripheral irritations unaccompanied by changes of the central portion of the (irritated) nerve, has been explained by Prof. Vrendensky's researches, who proved by experiment that when the nerve is in a normal condition it suffers no exhaustion; whilst, on the the other hand, the lesion in the intercostal ganglions, as a trophic center, is by no means a slight matter, as far as the spinal cord is concerned, for a final change takes place in the grey matter as well as in the white.

In view of all data the author concludes that in the majority of so-called functional diseases of the nervous system organic change is really present.—*Brain.*

Some Applications of Hot Water.—Headache almost always yields to the simultaneous application of hot water to the feet and back of the neck.

A towel folded, dipped in hot water, rung out rapidly, and applied to the stomach, acts like magic in cases of colic.

There is nothing that so promptly cuts short congestion of the lungs, sore throat, or rheumatism, as hot water when applied promptly and thoroughly.

A towel folded several times, and dipped in hot water, and quickly wrung out and applied over the painful part in toothache or neuralgia, will generally afford prompt relief.

A strip of flannel, or napkin folded lengthwise, and dipped in hot water, and wrung out, and then applied round the neck of a child that has the croup, will sometimes bring relief in ten minutes.

Hot water taken freely half an hour before bed-time is helpful in the case of constipation, while it has a most soothing effect upon the stomach and bowels. This treatment, continued a few months, with proper attention to diet, will cure any curable case of dyspepsia.—*Med. Age.*

Two Drops of Creasote made from beech-wood tar, given with a little water, is said to be a specific for hiccough arising from drunkenness.

WEEKLY MEDICAL REVIEW.

BRANSFORD LEWIS, M.D., Editor. W. C. MARDORF, M.D., Associate Editor.

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SATURDAY, FEBRUARY 14, 1891.

Legislation to Reduce Doctors' Fees.

A delegate to the House of Representatives, Smith by name, has recently introduced a bill to limit physicians' fees to the uniform rate of fifty cents for an office consultation, and one dollar for a visit.

If there is anything calculated to awaken in the physician feelings of contempt, of disgust, for the inappreciativeness of humanity, it is an idiotic demonstration of this sort.

The wrongs of the more easy-living city practitioner are great and numerous enough; but when we compare them with those of our country brother, they are insignificant almost beyond recognition.

The country doctor is expected not only to be constantly at the beck and call of every one who deigns to honor him with his "patronage," to travel through muck and mire, through all kinds of weather, day or night, any number of miles, to serve some worthy patron who, when the bill is rendered, after having been withheld the accustomed length of time—anywhere from six months to a year; the longer, the more appropriate—for doctors' bills—if he does not then strenuously object to such an exorbitant rating, at least patronizingly says, "that will be all right, I'll settle before long;" and then begins the second stage of waiting, till it is convenient for him to make a payment. And the physician is lucky if he does not in the end have to accept his 'exorbitant' pay in potatoes or some other product of the farm.

But if, by any accident, which by any means could be interpreted as resulting from an error on the part of

the physician, the case does not do well, how vast is the oratorical condemnation and obliquy, heaped on his devoted head; and how few of the community are there that do not know of his sinful mistake in a few days, and have not each had a turn at enlarging on its egregiousness and seriousness, in imparting its horrible details to his neighbor!

The wrongs of the practitioner are multitudinous. He is assailed from all sides. It is taken for granted that his lot is one of martyrdom to the cause—to humanity, which in return gives him no support, but directs its admiring gaze, grateful hearts and fulsome praise toward the quacks, charlatans and self-aggrandizers who abound in every locality.

Why is it that the practice of medicine is the only profession, or business, or mode of making a living which is supposed to be conducted universally on the credit plan? Is the merchant or the lawyer expected to give his goods or advice to an entire stranger, respectable looking or otherwise, and receive the consoling assurance that it will be settled for at some future time?

Is it generally thought but just that a merchant should on count one-third or one-fourth of his business proving a dead loss? Is he comforted with the reminder that he should have expected as much; it was but the natural order of things? Nay, verily.

But with the physician? Oh! that is different. He must be prepared not only to share a much greater proportion of business losses, but outside of this, and in addition, he must do a great deal of charity work, for which he must never expect greater reward than the occasional renewal of distinguished consideration, or perhaps he may be so fortunate as to be the recipient of other patients of the same sort.

The merchant may complain, with justness, of such business losses, but the physician never! He should be above any such mercenary thoughts. He should practice, should devote his time, his energies, his health, his life, for the love of his noble calling, and decidedly *not* for the money that is in it. That should have no place in his elevated plane of thought.

This is what we hear—what many of us say, but *is* it what we *feel?* Does the subject of our right to a share a just proportion of worldly reward for labor done, never enter our minds? We confess that personally it does; and we believe we are not alone in harboring such unphilanthropic sentiments. We believe that like the worm, the profession will turn—will become more business-like in its methods, will expect to know a little more of the likelihood of compensation for services about to be rendered, and will become less liable to relinquish just claims, in charitable submission to the pleadings of those who cannot afford to pay their doctor's bills, but can always afford to keep themselves supplied with whisky, beer or cigars.

The profession will turn; and it will take only a few such prods as that of the brilliant example of legislative asininity mentioned above to hasten the revulsion.

The Prophylaxis of Diphtheria.

Prof. Loeffler's paper on the prophylaxis of diphtheria has attracted much attention among the profession, and we now hear from different quarters various modifications of his method of prevention and disinfection. Dr. F. H. Peck, of Clinton, N. Y., sends a communication to the *Med. Rec.*, stating that during the winter he has attended a total of fifty-two cases of diphtheria; of this number but three died, although the disease was of a most malignant type. The method of treatment employed was chiefly a local antiseptic one, and was as follows: The persons in the same house with the patient were required to use four times daily a 1% solution of creolin as a gargle. In addition to this ordinary sanitary rules and isolation are enforced as much as possible. Although many of his cases have been among the poorer classes, where the unaffected children spent most of their time in the same room with those who were ill, he has found no second case develop in a house where the above precautions were taken.

In the treatment of the disease itself he relies chiefly on the bichloride of mercury locally, the method advocated by Oatman, of Nyack, in 1888. The latter advises that the solution be of the strength of 1 to 3840, but Dr. Peck has found that this strength is wholly inefficient, and uses solutions varying in strength from 1 to 100, to 1 to 50, according to the age of the patient and the severity of the case. Where the disease is mild, or the children are young, the weaker solution is used, and as the exudate disappears the strength of the solution is gradually diminished. The solution, which should be labelled "Poison," is used in the following manner: A swab is made by wrapping a small tuft of absorbent cotton tightly about the small end of a tapering stick of wood, one-eighth of an inch in diameter at the small end, and six or seven inches long. The cotton-wrapped part of the swab should not be larger than one-fourth of an inch in diameter. The swab is saturated with the bichloride solution and rubbed thoroughly over all tonsillar and pharyngeal exudates. To facilitate the removal of the exudate firm pressure is made with the swab, and a rotary or twisting motion given to it. Of course the swab is used but once and then burned. The application should be made every two hours in severe cases; in milder cases every four hours is sufficient. If the nose is involved by membrane a 1% creolin douche is used every four hours. The internal treatment includes iron stimulants, and is chiefly symptomatic. Dr. Peck makes the following claims for his method of treatment:

1. Its efficacy. The majority of cases show marked improvement within twenty-four hours, and are convalescent within a week.

2. Its freedom from danger. I have never seen an instance of intestinal disturbance or stomatitis among my cases. Constipation, requiring occasional laxatives, has been the rule, and if the swabs be tightly wrapped and made sufficiently small, they will not absorb to ex-

ceed three or four minims of the solution, and will retain most of that after swabbing.

3. Its simplicity. In but one of my cases have the services of a trained nurse been available, and members of the family have, after instruction, put the method in execution.

4. This method combines the advantages of the local and internal use of the bichloride, as a small amount of the solution must necessarily be absorbed at each application.

Chloroform in Typhoid Fever.

Stepp, of Nurnberg, whose results with the use of bromoform in pertussis attracted such general interest, especially since they have been corroborated by the investigations of other observers, has made another important contribution to therapeutics, regarding the treatment of typhoid fever with chloroform (*Munch. Med. Woch.—Med. Chir. Rundsch.*). It is now about a year and a half since Stepp, in the course of a paper on the internal administration of chloroform, stated as a conclusion that chloroform, $CHCl_3$, given internally, had brought about very satisfactory results. Leaving aside its very beneficial action when used as a mouth-wash or gargle, it was an excellent remedy in acute digestive troubles; it had also shown itself of considerable value in the treatment of chronic ulcer of the stomach, croupous pneumonia and typhoid. At that time Stepp had employed chloroform in but six cases of typhoid, whereas he is now able to give the observations made in eighteen additional cases.

In these the chloroform treatment was, on the whole, strictly carried out, one gram diluted in 150 grams of menstruum being given daily in three doses (5 minims t. i. d.); in one or two cases he employed quinine in addition in gram doses. The author is now able to fully confirm his previous observations with regard to the value of chloroform in the treatment of typhoid; the severe cases were most favorably influenced, in that in a few days clear consciousness replaced somnolence and delirium; the dry, hard tongue became moist, and the general condition visibly improved. The temperature showed a marked reduction after eight and ten days, and the stage of recession, which was very short, led rapidly to convalescence. It is true that relapses sometimes occurred, but these were of short duration. The only case which resulted fatally was that of a girl aged 13 years. The average duration of the disease in severe cases was 19 days, in milder cases, 8 days. The most protracted case lasted 30 days, and the shortest lasted only 8 days.

The author feels himself forced to the conclusion that chloroform passes through the body unchanged, and that in this way its favorable (anti bacterial) action is to be explained. He has observed no ill effects attending the administration of the drug, and is, on the contrary, of the impression that chloroform, given in this way, has very much of an irritating, or rather, a stimulating, action; he does not believe it possible that a daily dose of one gram could exert any injurious influence on the blood (destruction of the blood corpuscles); such an effect, if possible, would be more easily produced in chloroform anæsthesia by inhalation, where, for example, as much as several ounces are employed within a few hours.

For these and other reasons the author is led to his conclusions, which, briefly stated, are that the internal treatment of typhoid fever with chloroform is unattended with danger or risk; and that the results are most favorable from every point of view.

A New Method of Administering Sulphonal.

This is the heading of a paper in the *Med. News*, by David D. Stewart, M.D., of Philadelphia, and the little article is a most practical contribution.

The great disadvantage which sulphonal has over other hypnotics is, as he states, its insolubility and consequent slowness of action. To obtain a decided effect a large dose must be given, the results appearing in a few hours and lasting for an excessive length of time; during the next day there is a semi-somnolent condition which is most annoying to the patient, as well as to the physician. This slow absorption and protracted action of the drug has been supposed to be one of its unavoidable peculiarities, and has given rise to the expression "sulphonal demands its own." Many physicians are, in consequence, deterred from prescribing the drug.

It is, therefore, a source of satisfaction to learn of a method of administration by which results are afforded which are not obtainable in the ordinary way. This method, as described by Dr. Stewart, is as follows:

I direct that just before retiring the sulphonal powder be well stirred in a glass, two-thirds full of boiling water (about six fluid ounces) until entirely dissolved. The water must be boiling, and to insure that it is at the boiling point when brought in contact with the sulphonal, it had better be heated on the spot. It can be boiled in a tin-cup over the gas, or over a spirit-lamp. After the sulphonal has entered into solution, which will occur in a moment or two if it be well stirred, cold water may be very cautiously added to reduce the liquid to a drinkable temperature, which, if the patient is accustomed to taking hot fluids, will be one not sufficient to cause the slightest precipitation of the drug; or the hot solution of sulphonal may be permitted to cool to this temperature, the cooling process being facilitated by continued stirring. To insure success the sulphonal must be taken wholly dissolved, and the hotter the solution is drunk the better.

By this method the period of therapeutic incubation is practically done away with. The gastric vessels are dilated and stimulated to rapid absorption by the hot solution, so that diffusion takes place from the stomach probably before slight or any precipitation of the drug

occurs. The effect is entirely unlike what occurs when the sulphonal is given in simple suspension. Sleep usually follows in a few moments and appears to be more profound and dreamless than when the drug is given in the ordinary way; as the dose needed is also much smaller and the effect is rapidly shown, the annoying drowsiness usually experienced on the next day is scarcely felt.

A slightly unpleasant taste is given by dissolving the sulphonal, but this may be masked by adding a tablespoonful of *liqueur creme de menthe* ("green mint"), which will also promote the rapid absorption of the drug. Is is also desirable that the stomach be empty, or at least comparatively free from food, but there will usually be no difficulty from this, as it is not necessary to take the dose until just before bed-time.

The Indications for Tracheotomy.

The question of whether or not to perform tracheotomy in a given case is often a most perplexing one, requiring considerable forethought and judgement for its decision, and there is as yet much difference between anthorities on this point. In a paper read before the *Gesellschaft f. Kinderheilkunde* and published in the *Deutsche Medizinal Zeitung*, Dr. Philip Biedert of Hagenau gives some hints which may be of considerable service to the practitioner.

To begin with, he believes that treacheotomy is indicated only when non-surgical measures offer no hope of relief. He does not favor an early operation in diphtheria because the spread of the disease down into the bronchi is not hindered by it; it increases the chances of a secondary pneumonia, and lastly, the presence of the wound increases the dangers of septic infection and brings with it the liability to danger later on from sequelar localized in the larynx. For these reasons the other known internal and external remedies should be faithfully persevered in until dyspnoa sensibly increases, retraction of the sternum becomes marked, and there is impending danger of suffocation. If the child is still conscious we should try an emetic, if not, the operation should be performed at once.

In the choice of operation Biedert decides in favor of tracheotomy above the thyroid isthmus; after cutting through the skin and subcutaneous fascia he separates the remaining tissue down to the trachea with blunt instruments. In cases of great urgency an incision should be made into the trachea at once without regard to hæmorrhage. Among the means for after-treatment he mentions the wet pack, inhalations of steam, and dusting of iodoform in powder on the wound; in cases where food passes into the trachea and out through the wound instead of into the æsophagus, and where feeding by the stomach tube is out of the question because of vomiting, food should be administered by means of rectal enemata.

It would be of the greatest value to have accurate statistics, which should give the number of cases recovering and dying without operation, the number of cases treated with emetics, and those treated by tracheotomy, giving also precise information with regard to the time of operation and the nature and seat of the disease. For the collection of such statistics Biedert recommends the appointment by the State of a commission which should see to it that uniform and complete reports are made of each case of diphtheritic disease. The plan, however desirable it may be, is one which is, perhaps, feasible on the Continent only.

The First Case Cured by Koch's Lymph.

Wm. A. Walters, the first patient treated for consumption with paratoloid in St. Louis, was on last Sunday discharged from the Missouri Pacific Hospital as cured, to all signs and appearances. The course of treatment lasted three weeks and full details concerning the case will probably be furnished soon by the gentlemen in charge. In this conection it may be stated that one of the patients who suffered from phthisis, and was treated at Bellevue Hospital, New York, by the Koch injections, has been discharged cured. He straightway developed symptoms of keen financial ability, and is now exhibiting himself in a Bowery Museum as "The first American cured by Koch's Lymph."

MEDICAL ITEMS.

An Epidemic of Rabies is said to prevail in the neighborhood of Reading, Pa. Three persons have been bitten by dogs presumably rabid.

The Treatment of Condylomata.—Kaposi recommends for the treatment of syphilitic condylomata with broad bases the use of emplastrum hydrargyri. It should be as adhesive as possible, and is said to be rapidly effective and unattended with pain, causing the syphilitic infiltrations to disappear in a short time.

For a Woman's Scientific College.—Dr. Henry Muirhead, recently president of the Glasgow Philosophical Society, has bequeathed the sum of $125,000 for the erection and endowment of a scientific college which shall be devoted entirely to the instruction of women in surgery, dentistry, electricity and chemistry.

Ligature of the Vertebral Artery in Epilepsy.—Dr. Telford Smith relates the following case: An imbecile boy, æt. 11, had from twenty to thirty epileptic fits a month. The embecility and epilepsy were both congenital. The left vertebral artery was tied in 1881. Four years after the ligature there was marked mental improvement after careful training, and there were no epileptic fits. They gradually returned, however, and the mental condition relapsed. In 1885 he

had 49 fits; in 1888, 231 fits; in 1889, 245 fits; and the mental state was, at the time of the report, slowly deteriorating.—*Journal of Mental Science.*

THE RICORD PRIZE.—The French Academy of Medicine has been authorized by the Minister of Public Instruction to accept the legacy devised to it by Phillippe Ricord for the foundation of a prize to be awarded every two years to the author of the best work on venereal disease which appears in the intervening period.

THE PRESCRIPTION.—The second number of this compact but comprehensive little exponent of evidence in the therapeutic world has reached us, and fully sustains our expectations concerning Dr. Wile's new production. This *Prescription* may be had at the regular office rate of one dollar, and is brim full of valuable material for the investor.

RAILWAY SANITATION IN INDIANA.—An ordinance has been passed in Indiana which compels all railroad companies to put storm doors on all railroad coaches and street cars for the carriage of passengers, to keep the temperature from sixty-eight to seventy in the cars, and to furnish spittoons partly filled with a solution of bichloride of mercury, for the use of persons suffering from chronic cough and expectoration.

SECTION ON STATE MEDICINE.—Dr. Benjamin Lee, Secretary of the State Board of Health of Pennsylvania, has accepted the position of Secretary of the Section on State Medicine of the American Medical Association.

As the meeting takes place in Washington, May 5, it is important that all papers intended for this section should be in his hands by April 5. All members of the Association desiring to be enrolled in the Section are requested to forward him their names at 1532 Pine Street, Philadelphia.

WARM BATHS FOR INSOMNIA.—The quieting and hypnotic effects of baths of lukewarm water have been known for some time. Dr. Alldorfer, in *L'Union Medical*, recommends a method which he says is more convenient and brings about the same results. Soft linen cloths wrung out of lukewarm water are wrapped around the abdomen and covered with rubber tissue or the like; over this is a flannel bandage, to retain the warmth and moisture. The doctor says that with this simple procedure he has attined really surprising results in his cases of insomnia.

HOMŒOPATHY IN RUSSIA.—Homœpathy is said to be spreading in Russia, especially in the upper social strata. Societies for the propagation of the Hahnemannian doctrines have recently been established at Tschernigow, Odessa and Warsaw. As has been noticed in other countries, the clergy are conspicuous among its supporters; in Russia the military mind seems also to have an elective affinity for globules and infinitesimal dilutions. Thus at Tschernigow one of the founders of the new society is the bishop. At Odessa, among those who have signed the draft statutes of the society, are the Archbishop of Cherson, Charles Count Rostowzew, Roop, Teplow and Strandmann, and the mayor of the city.

HYPERALIMENTATION IN ACUTE DELIRIUM.—Dr. G. Guicciardi has obtained in the treatment of acute delirium less unfavorable results than one usually observes in this disease. He only lost (out of eleven cases) four by death, while five completely recovered, and two became weak-minded. The treatment adopted by him consisted in isolation, removal of all sources of irritation, protracted lukewarm baths, with the simultaneous application of ice-bladders to the head, and a few leeches to the mastoid process, as well as in revulsion to the intestine and ergotine injections. But he places a still greater emphasis upon the richest possible feeding, and indeed by methodic feeding, by means of the sound, every three to four hours with ten ounces of the most nourishing fluid food.—*Medical Record.*

ACTION OF SALOL ON THE KIDNEYS.—In a report in the *Centralblatt f. Chirurgie*, 1890, it is stated that Kobert has pointed out a possible danger in the use of salol which is of importance. Salol is so constituted that it undergoes conversion into carbolic acid in the system of an animal, so that any dose is equivalent to about one-third the same quantity of carbolic acid. Hesselbach ordered for a strong girl, æt. 22, with acute articular rheumatism, fifteen grains of salol to be taken every two hours; but she was given by mistake double this dose, so that in eight hours she took 120 grains. This was followed by sopor, suppression of urine and death in four days.—*Medical and Surgical Reporter.*

THE TEETH IN EPILEPSY.—Speaking of the importance of examination of the teeth in epilepsy, the *Lancet*, December 27, 1890, says that Dr. Bakowski mentions in the *Przeglad Lekarski*, an instructive case of epilepsy occurring in a young Jewess. It had been going on for nine months, and latterly the fits had become more frequent, there being several every day. Bromide of potassium, quinine, arsenic and asafœtida had been given without any effect. Finally, although there was no complaint of toothache, it was decided to examine the mouth. Two teeth were found to be carious—the first upper molar on the right and the first lower molar on the left side. These were extracted, with the result that the fits entirely ceased and did not return, though the patient was under observation for six months subsequently. Upon being closely questioned the girl remembered that before the fits commenced she had had some unpleasant sensations in the affected teeth, but nothing that could be described as pain.—*Medical and Surgical Reporter.*

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, January 31, 1891, the Vice-President, Dr. J. C. Mulhall, in the Chair.

Dr. H. C. Dalton presented three very interesting pathological specimens.

Diaphragmatic Hernia: Traumatic.

Case I.—G. L., æt. 26, candy maker, was treated in the City Hospital two and a half years since for a penetrating stab wound of the left thorax, the knife penetrating the seventh intercostal space, two inches posterior to the mammary line. No grave symptoms appearing the wound was not explored, and the patient was discharged in a few days apparently cured.

On Jan. 22, 1891, he was readmitted in great suffering, pulse 90 and weak, temperature 103 F., respiration 30. Five days before admisson he was seized with sudden and severe pain in the abdomen referred to the umbilicus. The pain had never left him for a moment and at times had been excruciating. He said he believed he had not slept half an hour in the five days. Purgatives and enemata had been administered, but his bowels had not moved, nor had he passed flatus. During the first twenty-four hours after the attack he had vomited several times, but not subsequently.

The abdomen was swollen and quite hard; percussion gave general resonance, more marked in the epigastric and both iliac regions. The pain was still constant throughout the abdomen, increased by pressure. He rested best when well propped up in bed. Several large glycerine and warm water enemata were given without avail.

Several surgeons requested to see the case agreed to the advisability of laparotomy. The diagnosis, made at the time, was either an internal hernia, or strangula tion of a portion of the intestine by a band.

When the abdomen was opened by an incision in the median line, general peritonitis was found, and the intestines were all inflated save the descending colon, which was collapsed. After some minutes search, a diaphragmatic opening was found in the neighborhood of the splenic flexure of the colon, through which all the omentum and twelve or fifteen inches of the colon had passed into the left thoracic cavity.

Efforts were made to remove the mass by steady traction, being loath to cut the diaphragm unless compelled to do so; but after a number of fruitless efforts, and being fearful of injuring the gut, I made an incision one-half inch in extent in an upward direction; and introducing two fingers, broke up some omental adhesions, and then easily returned the mass to the perito neal cavity. Some slight hæmorrhage followed which was readily arrested by a gauze tamponade. The ends of the strips were left protruding from the upper angle of the median incision. Irrigation was not deemed necessary.

The difficulty experienced in returning the intestines to the peritoneal cavity was greatly relieved by passing a tube up the descending colon, and allowing the escape of a considerable quantity of very fetid flatus. The operation consumed an hour. Patient was put to bed in a collapsed condition; pulse 130 and quite weak, he did not rally but died four hours after the operation.

From the conditions revealed by the laparotomy, it can readily be seen that by the original wound received two and a half years ago, the knife cut through the diaphragm and as a sequence (the wound may not have entirely united) a cicatrix was left. Cicatricial tissue being weak tissue, the intra-peritoneal pressure had gradually overcome it and forced the intestine and omentum through the diaphragm. If a more thorough examination had been made, the speaker thought the left thoracic cavity would have been found drum-like on percussion (pneumothorax) and the heart displaced to the right. These symptoms, taken together with the knowledge of the original stab-wound, might have afforded the exact diagnosis. Then instead of doing a laparotomy a portion of the seventh rib might have been resected, the opening in the diaphragm enlarged, omentum and intestine returned to its proper cavity and the diaphragmatic opening closed from above. As this operation when compared with laparotomy is very much less fatal, he believed his patient would have recovered.

In observing the specimen a portion of the seventh rib is seen attached to the diaphragm at the sight of the original stabwound, firm adhesions having taken place at the time.

The literature upon the subject of diaphragmatic hernia is very meager. Gross in his Surgery devotes less than six lines to the consideration of the subject. Ashhurst, "Holmes System of Surgery," and several other authors examined dismiss it with about the same brevity. In "Druitt's Modern Surgery" a half paper only is devoted to the subject.

He states that "it is either the result of congenital deficiency, of slow dilatation of a weak spot in the diaphragm, of violent falls on the abdomen, or of muscular efforts capable of lacerating the diaphragm and driving some of the intestines into the thorax. It may also result from penetrating or gunshot-wounds of the diaphragm."

Guthrie in his Commentaries predicted the possibility of diaphragmatic hernia from bullet-wounds, and suggested laparotomy for its reduction.

Diaphragmatic herniæ rarely, the acquired or traumatic variety never, have a sac. They occur most frequently on the left side, as the liver blocks the way on the right. Congenital herniæ are often so large that they occasion speady death by compression of the thoracic viscera.

Duchaussoy states that strangulation is rare—eighteen times in one hundred and twenty cases.

Laceration of Mesentery. Resection of Ileum.

Case II.—F. R., æt. 48, admitted to the hospital Jan. 15, 1891. Eleven and a half hours before admission

the patient fell from a wagon, and while on the ground a companion jumped from the wagon and accidentally landed on patient's abdomen with both feet.

When admitted the patient was in great agony, abdomen swollen and very tender to pressure; temperature 103, respiration 42, pulse 132, and no bruises or abrasions found on the abdomen. A laparotomy was performed, a four-inch incision being made in the median line. About two quarts of blood were washed from the peritoneal cavity. The mesentery of the ileum was found torn entirely through to the extent of about a foot parallel to and about two inches from the gut. The intestine was dark in spots, showing commencing gangrene.

A foot of the ileum was resected commencing about an inch above the cæcum. A V-shaped piece of the mesentery removed and the ends brought together by circular enterorrhaphy. The operation consumed an hour and a half. Patient died ten hours after the operation, reaction never having taken place.

The resected gut was presented, together with the portion showing the circular enterorrhaphy. The great length of time (eleven and a half hours) which intervened between the time of receipt of the injury and the time the patient was brought to the hospital and operated upon conspired to precipitate the fatal termination, for by that time peritonitis had become general.

Uterine Fibroid (or Myoma.)

Case III.—M. W., æt. 28, a woman of the town, admitted January 23, 1891. The patient received some severe burns during the "Southern Hotel" fire, since which time she had not been sick or hurt. There was no history of syphilis, though she had a vaginal discharge some years since, probably gonorrhœal. Menstrual flow commenced at 13 years of age. Ten years ago she was confined at the age of 18, the child being delivered with instruments; has not been pregnant since.

During the past three or four years she has been troubled greatly by pain in the back. If simultaneous with the menstrual flow the latter was increased in quantity, particularly during the past year. During the last three or four periods the flow has been quite excessive, the backache and bearing-down pains being marked, the period, as usual, lasting a week.

Two weeks before admission to the hospital she became unwell, the flow continuing up to the time of admission. The bearing-down pains became more and more severe daily. Two days before admission, and in the erect position, she suddenly had a very severe bearing-down pain, which was followed by the forcing downward into the vagina of what she termed a bloody tumor. This protruded from the vulva. A physician was called in who pressed it back and informed her that "it was the bladder filled with urine." The next day while at stool the same mass was again forced down during an expulsive pain.

When admitted to the hospital she was suffering acute pain, pulse was weak and rapid, face pale, extremities cold. Protruding about three inches from the vulva was a hard, firm tumor about the size of an ordinary bullock's heart, of a darkish-brown color, and almost gangrenous, but unaccompanied by hæmorrhage.

The speaker stated he grasped the tumor with his left hand, inserted two fingers of the right into the vagina, and by strongly pulling upon the tumor and using considerable force, he managed to introduce his fingers into the uterus and bring away the tumor together with two other tumors about one-fourth the size of the first. They were attached to the fundus and sessile in character.

Little or no hæmorrhage followed the extraction of the tumor. The uterus was irrigated with 1–5000 bichloride solution, and a uterine tampon of iodoform gauze used. Her temperature for two or three days was about 102, after that it fell to almost normal, and has since thus remained, her pulse 88 and of good volume at 4 P. M. to-day.

The first view of the case suggested a case of procidentia uteri, but when its firm consistency was considered he was convinced that it was a fibroid, or as Tait would term it, a myoma. He says that "all so-called fibrous and hard polypi ought to be classed under the term myomata."

Also, "the term fibroid, fibrous and fibroma, as applied to uterine tumors, are, I believe, so completely erroneous that they should be banished from pathological nomenclature."

"I have now examined a large number of solid uterine tumors, and have never met with one in which simple fibrous tissue played any but a very subservient part.

"Of the tumors which pass popularly under the terms I speak of, I venture to say that only in extremely exceptional cases would it be found, on sufficient examination, that the chief constituent of the tumor was not fusiform muscular fiber, with its characteristic rod-shaped nuclei."

Dr. T. F. Prewitt presented a case (see p. 121) of

Trephining for Severe Headache.

Dr. Prewitt also presented a photograph of a little child six months of age whose head impinged against a mantel-piece, producing a depression of the right parietal protuberance about two inches and a half long and an inch and a half across, by which grave cerebral symptoms were produced. The accident occurred on November 8, the child was seen on the 19th following. The scalp being raised enough bone was chiseled out to admit the elevator beneath; the bone being raised the part depressed sprang back like an elastic substance, and the child recovered, manifesting no bad symptoms.

Dr. William Dickinson.—The first case reported by Dr. Prewitt illustrates most convincingly the triumphs of modern surgery. All will with one accord extend congratulations to the doctor on the success that followed. Since not only was the original object of the operation fully attained, viz., removal of pressure which occasioned the persistent and profound pain, but simul-

taneously was secured a result not distinctly anticipated, viz., the removal of pressure, though indirect, which was the cause of the blindness of the left eye, and in this happy result is found the corroborative testimony to the doctrine of Munk, which locates in the occipital lobe one important source of origin of the optic nerve; since removal of pressure permitted restoration of the functions which for nine years had been suppressed.

Dr. Williams inquired what had been the diagnosis, and what were the opthalmoscopic appearances of the optic disc?

Dr. Bremer replied the eye was absolutely normal; there was no patent lesion, no optic neuritis, no lesion of the external parts, nor of the optic tract.

Dr. A. B. Shaw said the description given by Dr. Prewitt, instead of confirming the view of physiologists in regard to the location of the centers of sight, seems rather to confuse it. We have been taught that lesions of the cuneus and angular gyrus would cause some perturbation of sight. This opening was very much above either the anular gyrus or cuneus, was over the first occipital convolution—high up—about the region of the posterior fontanelle.

The speaker thought it strange that surgeons had not been more bold in the practice of cerebral surgery. About 1888 Ammidon collected a series of cases, in which the skull had been opened, and the results proved very conclusively that the mortality of trephining, per se, was, under antiseptic surgery, only 3%. If so great a percentage of recoveries as 97% could be thus obtained, what should we have to-day under aseptic surgery? Seidel claims that the operation is followed by only a mortality of 1½ or 1.6%. Another series of statistics gives us a percentage of only 3.5% as a mortality in which the brain substance itself had been manipulated and tumors removed; but the mortality of operations upon the cerebellum hitherto has been 100%; that on the cerebrum only amounts to 2.5%. In the past the dura mater seemed to be the dead line; but now by surgical experience it is ascertained that the dura mater may be penetrated, the substance of the cerebrum gouged, cut, and large portions removed and with a percentage of only 21 fatalities out of every 100. Recent reports of cerebral surgery demonstrate that the brain may also be freely punctured with the grooved director for a distance of two or two and a half inches with exploratory intentions. Keane reports recently a very interesting case in which he entered the lateral ventricles, and evacuated the dropsical contents, and urges similar operations for the relief of tension produced by exudations in cases of tubercular meningitis. This case reported is not only marvelous, but is one of which the profession of St. Louis should be proud: Marvelous, that in the short space of a few hours, sight, by an operation not distinctly recognized hitherto should be entirely restored.

Dr. Frank Glasgow related a case (suggested by the present) of a young girl who was apparently blind, but recovered without an operation. She was brought to the St. Louis Mullanphy Hospital as one totally blind and said to have been so for months; and could not even tell daylight from darkness. The pupils contracted and expanded when strong light was admitted to, or excluded from the eyes, and she could see well enough to pick a fly out of a glass of milk, and to recognize the nurse on the porch, through the window.

She was detected in a number of acts of that kind, and had carried on this deception for months. Simply by observing these little things we ascertained that the girl could see. In addition, she conceived the idea one day that she could not speak. She was told that that was all nonsense and was asked where she got that idea? she replied "there were lots of girls where she came from that could not speak." Her father was informed, when he took her away, that she would probably recover her sight suddenly; and it was not more than two or three weeks after that she did regain it, on hearing a band on the street. The case related, if there were no gross lesions to explain the blindness, might possibly be of a similar character, and the moral effect of the operation may have effected a cure.

Dr. Alt.—Dr. Shaw stated that the region from which the bone was removed was not one at which the centers of sight were situated. It seems to me this point is not well taken. If one of the optic centers only had been involved we would expect to find hemianopsia and not total blindness; how the removal, therefore, of a button of bone from any other region than right over the visual center should conflict with physiological views is not evident.

Dr. Shaw continued.—This button of bone was removed from the region of the junction of the sagittal and lambdoidal sutures, that is, not more than two inches behind the fissure of Rolando, and at least two inches above the cuneus. The cuneus, in which one of the visual centers is located, is much lower, lying just above the cerebellum; the angular gyrus is situated towards the parietal eminence from that point. These portions of bone were removed at a distance from those centers. The remarks made were called out by the statement that the results of the operation corroborated physiological views. The buttons of bone were removed from either side of the median line, and then the intervening bridge was chiseled out, an oblong opening being made across the back of the head at a place quite distant from the angular gyrus or the cuneus, which latter is well down in the posterior and lower portion of the cerebrum.

The speaker thought the condition of the eye should be taken into account much more frequently than it is usually in the diagnosis of cerebral affections. When we consider that the second, third, fourth and the sixth nerves are specially connected with the organ of vision, a due regard to the perturbations in these nerves, detected by a thorough examination of the eye both as a physical organ and an organ of sight, will render important information respecting any involvement of the visual centers.

Dr. Barclay propounded the inquiry, whether n

operation at this site, would relieve pressure upon the thalamus opticus; since lesion in this organ, or any condition that interferes with its function as a whole, will interfere both with the centers of sight and also with those of the sense of hearing.

Dr. Dickinson said a few sources of origin of the optic nerve are distinct and demonstrated, but the entire number is infinite. The entire cerebral cortex doubtless contributes, as is indicated by the general convergence of cerebral filaments five thousand millions in number connected with the one thousand million cells of the cortex downward to the cerebral ganglia, which give evident origin to the optic tract, consisting of 450,000 fibrillæ. The thalamus opticus is too remote to be specially affected by the amount of pressure that was here exercised. One point had been omitted in the consideration of this subject; that was the very considerable amount of fluid found, which was liberated after the dura mater was incised. If the exact site of the pressure could have been diagnosed, of course the doctor would have removed these buttons of bone from sites directly over the origin of the nerve.

Dr. Alt said if the amount of fluid found was sufficient to produce pressure upon the brain to such a degree as to occasion loss of function of the optic centers, it is unaccountable that the condition of choked-disc was not found, instead of its being absolutely normal.

The President had seen the patient on two occasions, once in Kansas City several days before the operation took place, and again shortly before its performance here in St. Louis. Not a vestige of hysteria was present; attacks of pain, vertigo and nausea could be induced by pressing on the sensitive part—the depression—on the cicatrix. Immediately an intense pain sprang up, passed to the left eye, and thence to the right; the right eye then became temporarily blurred; pressure was not continued to the point of blindness. The pressure thus made elicited a flash of light as the first symptoms with pain. The vertigo coming on in these attacks spontaneously or thus produced occasioned a faintish feeling, nausea and sometimes vomiting and at times loss of consciousness. These attacks could be provoked at any time; sometimes even by blowing upon the point of primary injury. During the continuance of the pressure and the painful attack thus produced, the pupils dilated nearly to their utmost extent and the doctors that had seen her stated that the severer the attacks the greater the degree of dilatation. The pupillary reflex, on the stimulus of light, was still present; but sometimes the reaction would be paradoxical, that is to say, by a full volume of light striking the retina, the pupil, would dilate, presenting thus a paradoxical action of the pupils. She presented this very peculiar phenomenon, that although she could not distinguish light from darkness she still could feel the light; since its impact upon the retina of the blind eye produced a painful sensation. The question arose as to the nature of the trouble. Was it a brain tumor, or did we have simply to deal with a painful spot on the head, a so called epileptogenic zone through which certain attacks could be elicited? An analogous condition exists in cases of traumatic neuroses, so called; painful cicatrices if pressed upon will give rise to all kinds of sensory and motor disturbances, even down to genuine epilepsy. In traumatic neuroses, where there is a painful cicatrix, we have sometimes symptoms similar to those in this case presented. By pressure we can produce temporary scotoma of the eye; we can even produce an amaurotic condition and sometimes even epilepsy. The flash of light which she felt can be looked upon or interpreted as analogous to an epileptic aura. Of course the epileptic phenomena had nothing to do with the region of the brain—there being no pressure on the brain substance; it was a reflex epileptoid seizure. That it was reflex in nature the speaker thought was proved by the fact that the most sensitive spot was at the left of the median line *i. e.*, on the same side on which the blindness first occurred; and afterwards the blindness jumped over to the other side. Then again, how were the loss of consciousness and nausea produced? We get an insight into the traveling of the nerve irritation—of the radiation, when we have Jacksonian epilepsy. In the latter condition, the irritation travels from one motor field to another; for instance, the irritation travels from the visual centers and arrives on the opposite side at the visual center; then the nerve irritation shoots down to the convulsive center of Nothnagel, and then ensues general convulsion and loss of consciousness. The irritation of the fifth nerve—the nerve of the scalp—traveled in a definite direction to the left eye, jumped over to the other eye, and finally went down the medulla oblongata, where it irritated the vomiting center, and also the vaso motor center, producing a cerebral spasm; in consequence of which, loss of consciousness resulted, without however attacking the general convulsion center of Nothnagel. Destruction of the cuneus gives rise to hæmianopsia and retinal blindness on the oppsite side.

There was no hæmianopsia here; there was total blindness on the same side on which was the principal pain. The lesion commenced about a half an inch anteriorly to the lambdoid suture and extended the whole extent of the depression, or about an inch, more or less. There must have been diffuse functional lesion on one or the other side of the brain producing this blindness. In this respect it is analogous somewhat to hysterical blindness. It certainly was more or less functional; there was no obstruction to the optic centers; they were inhibited in some way from performing their function, owing in all probability to a pressure exerted upon these centers, and the portions adjacent.

Again, there was œdema, an arachnoid effusion over the left occipital lobe. The doctor made a very extensive opening, extending to within an inch of the tip of the occiput; and the nearer the occipital region he approached the more pronounced was the œdema. The restoration of this woman to sight with the left eye after she had been deprived of it for nine years excited the astonishment of all. Whether the cure will be per-

manent or not remains to be seen. So far, it is certainly one of the most brilliant results that could possibly be imagined. The speaker confessed to some misgivings, or rather some trepidation, when the doctor approached the longitudinal sinus; but the operation was conducted with dextrous boldness and surgical precision.

Dr. Pollak inquired: In the performance of the operation was the relief of blindness or relief of pain the object?

Dr. Bremer replied: The chief object was the relief of pain; the patient was afraid she would become crazy; nobody dreamed, or dared to hope, that the agencies employed in securing the exemption would result in the restoration of sight; that was a marvelous achievement too mighty and remote for anticipation.

SELECTIONS.

THE ABUSE OF MEDICAL CHARITY.

We are glad to see so strong and able a protest against the abuse of medical charity in our large cities as that of Dr. Gould, published in the *Medical News* for the 22d ultimo. Evidently he has spent much more thought on this subject than most of us, who, while bemoaning the medical beggary that exists, continue to degrade ourselves and our patients by indiscriminate medical almsgiving, for he has suggested a means, if not of cure, at least of prophylaxis. His statements would seem to be the embodiment of exaggeration to one not acquainted with the actual state of things in our large cities, but the worst of the paper is that it so accurately portrays the truth. Every physician of a clinic can cite cases from his own experience which are evidences of the pauperization of people able to pay him a fair price for his services. The case of curvature of the spine in a person who made the rounds of several hospitals and was given salicylates for probable muscular rheumatism, until finally examined by a more conscientious physi cian, may be an extreme and humiliating example of careless snap diagnosis and routine treatment induced by the hurry of the clinic room; but we fear that similar cases are only too common, and we know that habits of haste and carelessness are engendered thereby.

Regarding the effect of this abuse upon the young practitioners, Dr. Gould says: "When they enter upon their career they find that the older physicians treat, free of charge, thousands and hundreds of thousands of patients who could pay something, and that the younger physicians who need encouragement and practice, and to whom these patients would naturally fall, are left to starve for years, until somehow they wriggle into a properly compensated practice. It is brutally unjust to the young practitioner." The truth of this needs no affirmation to one who is or has been a young practitioner in a large city.

This abuse, he maintains, has arisen as the combined result of several confluent causes, pre-eminent among which, be it ever remembered, are the tender solicitude and unselfish kindness toward the sick on the part of medical men generally. Prominent among the other causes are the carelessness of almsgivers and testators in not providing against a misuse of their bounty, the neglect of trustees and managers of hospitals to cause a proper investigation of the alleged poverty of applicants for the benefits of the charity, the foolish competition among hospitals to treat the largest number of patients, the desire for clinical material for teaching purposes, the desire on the part of the visiting physician to see many patients in order to study disease in its infinite diversity and gain perfect technique, and, most active perhaps, the desire on the part of the chief and assistant physicians to build up a private practice indirectly.

The results Dr. Gould partially enumerates as:

1. The encouragement of pauperism, dependence, and deceit in a large class of the community.

2. The danger that, if it is ignored until it becomes still further exaggerated, when the knowledge of its enormity finally bursts upon the community, all forms of praiseworthy and necessary charity will suffer.

3. Injury to both physician and patient from a hurried and routine diagnosis and treatment.

4. The degradation of the medical profession by encouraging envy and subtle methods of advertising and by depriving the younger members of their proper *clientele.*

The remedy he suggests is that a codicil to all wills and bequests be prescribed, worded in such a manner that, unless the trustees of the institutions named exercise stringent care that only truly needy persons receive the benefit of the bounty, the bequest shall revert to the heirs. The practicability of this proposition we do not care to discuss at this time, but we are glad to have a definite suggestion made, and if it is practicable its efficiency can hardly be doubted.

We can not agree to all that Dr. Gould says regarding the sufferings of the country practitioner from this cause, for we have known of too many cases in which the country practitioner has caused imposition and deceit to be practiced upon his city brother by advising his patient to attend the clinic, poorly dressed, and to get the benefit of a consultation for nothing. If such patients should thereafter choose to attend the clinic to the pecuniary loss of the practitioner who gave such advice, the latter would suffer poetic retributive justice. But as to the main points in his paper we heartily agree with him. The same effective inquiry that has been found necessary in all other forms of charity should be insisted on regarding the fitness of applicants to receive medical charity, and the rights of the younger members of the profession should be regarded.—*N. Y. Med. Jour.*

McArthur's Hypophosphite Co., of Boston, have issued for the profession a very handsome calendar for 1891. A copy will be mailed to any member of the profession on application.

THE TREATMENT OF HÆMORRHOIDS.

BY CARTER B. HIGGINS, M.D.

Dilatation of the sphincter may not, in a surgical sense, be worthy the name "operation." If such is the case, I advise the "family doctor" to appropriate it, for, with the multiplied and multiplying specialties devoted to diseases affecting all organs and tissue between the fields of the alienist and chiropodist, inclusive, there is very limited territory in which he may practice.

My confidence in the superiority of the treatment by dilatation was secured by the same nature of accident which convinced the French surgeons—that is, by observing the complete and permanent disappearance of a number of large internal pile tumors in the case of a gentleman who, in connection with his other trouble, developed an anal fissure, dilation for the cure of which also cured hæmorrhoids.

Dr. Brenton of this society reports similar experience, his patient being a lady who had suffered greatly from strangulation of the tumors and great loss of blood; her fear of any operation suggested for the cure of the piles was too great to be overcome, but the fortunate intervention of an anal fissure induced her to consent to the procedure of dilatation, with the result of curing both fissure and hæmorrhoids and her speedy restoration to health.

I have used no other method in affecting the radical cure of piles for the past eight years, and during that time have succeeded in curing many cases of the most aggravated character. I will not now state the number of cases nor the percentage of cures, realizing that advocates of new methods too often excite distrust by alleging too much. I know of no condition that would forbid the application of this treatment. I have applied it at almost every stage of pregnancy, in four hours succeeding labor, in patients suffering from cirrhosis of the liver far advanced, in cases complicated with enlarged and indurated prostate gland, those with urethral stricture—in fact, I know no reason, where it is demanded for relief, why it should not be resorted to. In 1888 Verneuil reported the result of his application of the treatment during the 14 years then just passed. He alleged 98% of cures. He made no distinction in the cases, "both external and internal, old and recent, large and small, those associated with relaxed sphincters and those with the opposite condition." My experience with the treatment has been no less satisfactory than that reported by Verneuil.

The dilatation is effected as follows: Hook the thumb of your left hand and the middle finger of your right hand so as to include both sphincters on opposite sides of the anus and gradually but forcibly separate your hands until all resistance ceases, the object being to paralyze the muscles completely. It is commonly advised to oppose the thumbs, but in a great many cases the resistance will be found so strong that it will be impossible to separate the thumbs a sufficient distance. I have in some cases found the sphincters from long contraction developed to such a degree as to give the impression of pulling on an iron ring. I have never known any bad results follow the procedure. No after-treatment is necessary, except in cases where there is complaint of smarting, which may be relieved promptly by the application of a pledget of cotton saturated with a 4% solution of cocaine. It is always advisable to perform dilatation under the influence of an anæsthetic, the A. C. E. mixture being the one I always use.—*N. Y. Med. Jour.*

WIRE-GAUZE FOR SPLINTS.

Permit me to call your attention to the zinc, wire-gauze splint. This has been for many years a great favorite with me. One who has a little ingenuity can do almost everything with this as a splint.

I consider it the splint par excellence for the country practitioner, and in fact can see no splint which would be better for any surgeon in ordinary cases.

It is made from wire $^1/_{20}$ of an inch in diameter, and woven into squares of the size of $\frac{3}{8}$ of an inch across, and is well zinced together.

In going into the country, it is often a matter of conjecture, and sometimes of serious study and misgiving, as to what is necessary to take for a splint. It is not at all convenient, as I have sometimes found, to take a box of felt splints, or splints of various kinds and shapes and sizes, if one is so fortunate as to be so supplied, which is not usually the case. Splints made from pasteboards or wood for the occasion are often unsatisfactory, and almost any appliance is likely to be found hot and uncomfortable. Few permit of proper antiseptic dressings without discomfort to the patient or danger to the part, nor do they admit of the easy applications of anodynes or evaporating lotions. The wire-gauze splint fits all sizes of limbs and all portions of the body. Buy a yard or more of the gauze. Get also a small pair of tinner's shears, and you are ready to fit the body with any splint desired. In making, cut the gauze into strips of four or five different sizes. These will be the stock splints. Nip off the protruding points where cut through to make smooth edges to the splint. A set of these splints in the rough may be rolled into a bundle and be ready for use as occasion may require.

Bend, and if over a joint cut through nearly across the splint and put in the angle, wiring the overlapping fragments with small-sized copper wire. Notch out to fit such joints as may be necessary. The flexure in the joint is superior to other solid removable splints; in that the angle can be made at any degree desired. When fitted, place the bandaged limb in the splint in the usual manner. If it is desired, a layer of absorbent cotton may be placed in the splint before bandaging. In case there be an open wound, which is desired to be dressed without removing the splint, nip out a section of the gauze of such a size as may be desired. If deemed

not of sufficient strength, the splint may be reinforced by another strip of the gauze.

This splint is light. It is easy to keep on hand and never wears out. It is cool. It is non-absorbent and easily cleaned. It permits the application of liniments and evaporating lotions at the site of injury as desired. It is easily applied. It is and remains aseptic, and its cost is trifling. Why it has not come into more general use is a mystery to me.—H. W. Coe, M.D., in *Northwestern Lancet.*

Bromide of Gold in Epilepsy.—The monobromide of gold has been employed in Russia, Germany and Belgium as a nervine and anti epileptic. Dr. Goubart, of Brussels, has reported that, in a certain proportion of cases, it has been better borne than any of the bromides. According to him the initial dose for adults should be one-eighth of a grain, to be increased to one-fifth; for children from one-twentieth to one-tenth of a grain.—*Jour. Am. Med. Association.*

Through to Deadwood, S. D.—The new line of the Burlington Route to Deadwood will be in operation on February 1. The principal points through which this line passes are Lead City, Dakota Hot Springs, Hill City and Custer. Good service for freight and passengers is offered by the Burlington Route from St. Louis, Peoria and Chicago to all points in the Black Hills, including New Castle, Merino and intermediate points.

The Burlington Route is also the best line for Nebraska, Colorado and the Pacific Coast. Only one change of cars to San Francisco and Portland. Through trains are run to Kansas City, St. Joseph, Denver, Omaha, St. Paul and Minneapolis. Free Reclining Chair Cars and Pullman Palace Sleeping Cars on through trains.

For tickets, rates and further information, apply to your nearest ticket agent, or address

C. M. Levey, Gen'l Supt., Keokuk, Ia. Howard Elliott, G. P. & T. A., St. Louis.

A Victory for the Wagner Vestibule.—The Wagner Palace Car Company, operating sleeping cars over the Big Four Route, has gained a signal victory in its controversy with the Pullman Company. By the decision just rendered by Judges Gresham and Blodgett, in the United States Circuit Court at Chicago, the motion made by the Pullman Company to enjoin the Wagner Company from the use of the "Vestibule" is denied, and the Wagner Company is sustained on every point it has made in the contest. The decision practically disposes of the litigation, and leaves the Wagner Company a clear field in which to demonstrate the superiority of its perfected Vestibule, which is now in use on all express trains of the Big Four Route, making the trains practically solid from end to end, an advantage which will be readily appreciated by the traveling public.

USEFUL FORMULÆ.

The following formulæ are taken from the *College and Clinical Record*:

Spinal Epilepsy.—In a case of spinal epilepsy, Prof. DaCosta prescribed:

℞ Tinct. belladonæ, - - - gtt. iij.
Sodii bromidi, - - - - gt. xv.
M. Sig.: Use t. d.

Chronic Gastric Catarrh.—In a case of chronic gastric catarrh, Prof. DaCosta prescribed:

℞ Bismuthi subnitrat., - - gr. x.
Pulv. aromat., - - - - gr. ss.
M. Sig.: Use such a powder two hours after meals, in addition to ʒj-ʒij sodii phosphatis every morning.

Rheumatoid Arthritis.—A man who presented himself at the clinic suffering from rheumatoid arthritis was ordered this ointment for local use, after blisters and massage of the joints had been first used:

℞ Iodi, - - - - - grs. xx.
Ung. belladonnæ,
Petrolati, - - - - aa ʒj.—M.

Habitual Constipation.—The following was given to a woman who was troubled with habitual constipation:

℞ Aloin, - - - - - gr. ss.
Ext. hyoscyami, - - - - gr. j.
Ext. Rhei, - - - - gr. ij.
Olei cajeput, - - - - gtt. j.
M. Ft. pil. Sig.: Such a pill every night at bedtime.

Aortic Stenosis.—The following formula was prescribed by Prof. DaCosta in a case of aortic stenosis:

℞ Liq. potassæ, - - - - gtt. x.
Tinct. veratri viridis, - - - gtt. v.
Syr. zingiberis, - - - ʒss.
Aquæ, - - - - q. s. ad ʒj.
M. Sig.: Use t. d.

Simple Conjunctivitis.—Cases of simple conjunctivitis are frequently benefited very much by the following prescription, which is used in the Jefferson Clinic:

℞ Acid. borici, - - - - gr. xx.
Aquæ camphoræ,
Aquæ destillat., - - - aa fʒij.
M. Sig.: Bathe eyes freely, dropping two or three drops in each eye four times daily.

Rheumatism.—A man suffering from rheumatism, in whom the acute stage had just been passed, was given:

℞ Potassi iodidi, - - - - gr.v.
Potassii acetat., - - - - gr.x.
Tinc. colchici sem., - - - gtt.x.
Elix. simplic.,
Aquæ, - - - aa q. s. ad fʒj.
M. Sig.: Use every four hours, with Dover's powder at night.

ORIGINAL ARTICLES.

THE INFLUENCE OF LATENT HEAT IN MAINTAINING A UNIFORM ANIMAL TEMPERATURE.

BY DR. A. D. BARR, CALAMINE, ARK.

We are taught that the "regulation of animal heat is largely due to the loss of heat;" and that the loss of heat depends upon the state of the body, the condition of the external temperature, and that the nervous system is the medium by which the generation and the laws of heat are controlled. It is said that the means by which a uniform temperature is maintained are: When an increased amount of heat is generated, by increasing its loss, and when a decreased amount of heat is generated, by preventing its loss. Furthermore, the means by which the loss of heat is also said to be accomplished is, when the body is exposed to a high external temperature, the arterioles of the skin relax, a free current of blood sets toward the surface, and heat is largely given off by radiation, and at the same time both the sensible and insensible perspiration is increased, and the loss of heat is, therefore, largely increased. And again, the respiratory acts are increased when the external temperature is high, and a greater amount of heat is given off in the form of vapor by the breath.

The means by which the loss of heat is said to be prevented are: By the action of a lowered external temperature upon the surface of the body, the arterioles are contracted, and by decreasing the amount of blood at the surface the loss of heat by radiation and perspiration is likewise decreased.

In the foregoing endeavor to account for a uniform temperature of the animal body, one of the most important characteristics of heat has been ignored.

Without considering the loss of heat from the surface of the body by radiation, which in my opinion is insignificant, we come at once to the means by which the loss of heat, above that which the system demands, is accomplished by the evaporation from the lungs and skin, of water, which in passing from the liquid to the vaporous state carries off at least 1000° F. latent heat.

Draper says, "If to the 1000° of latent heat we add 212°, the sensible heat of steam, we find that the actual amount of heat in steam or vapor is 1212°. From this take the temperature of the latter as it escapes from the lungs, say 100° F., and we will have 1112° as the latent heat of the vapor coming from these organs, and representing the cooling effect of vaporization on the system. To this must be added the difference between the temperature of the air and 100° F., to obtain the full effect."

It must be admitted that by far the greater amount of heat is given off from the body in the form of latent heat; and as latent heat is capable of being converted into sensible heat, it is to this power more than to any other that a uniform temperature of the animal body is sustained. For example, when a kettle containing water is placed over fire, the bottom portion is heated first; vapor rises in bubbles, and coming in contact with the upper and cooler portion the vapor is condensed, and in its condensation its latent heat is converted into sensible heat. In the body the vapor is formed at the same time the heat is generated and eliminated by the lungs and skin. When the external temperature is high the body is cooled by the heat being rendered latent and carried off in the form of vapor.

When the external temperature is reduced the temperature of the surface of the body is also reduced, and the blood containing the latent heat in the form of vapor coming in contact with the cooler portions of the body, the vapor is condensed, and, as before stated, in its condensation the latent heat is converted into sensible heat, and thus serves to increase the temperature of the body when needed. Therefore the amount of vapor from the body is decreased in cold weather, not because the arterioles are contracted, but because the vapor is recondensed.

For these reasons I am forced to conclude that the latent property of heat has not been given its due consideration in the maintenance of a uniform animal temperature. It is for this reason that in warm weather so much more water is required than in cold. The same amount of vapor is produced in cold as in warm weather, but as it reaches the outer and cooler portion of the body it is condensed, and is thus prevented from leaving the system in as large an amount as in warm weather.

The animal body under the varying conditions of the external temperature may be logically compared to the high and low pressure steam engine. The amount of latent heat given off by the lungs is decreased in cold weather, for the reason that the blood holding the vapor coming in contact with the cool air in the alveoli of the lungs, the vapor is condensed to a certain degree, and the latent heat is converted into sensible heat, and serves to maintain a uniform temperature by increasing the amount of sensible heat in the animal economy.

OPIUM POISONING IN AN INFANT THREE DAYS OLD.

BY LOUIS HAUCK, M.D, ST. LOUIS.

F. K., male, 3 days old, was given a dose of opium, the size of which could not be learned at 4 P.M. I was called in at 9 P.M.; found the child unconscious; respirations slow and shallow, with a peculiar click of the palate; pulse slow, regular, of medium strength, and about 80 beats to the minute. Pupils were contracted to the size of a pin hole; skin cool and dry. Had had

several spasms which came about every half hour, but were becoming more frequent. Soon after my arrival tonic contractions set in, implicating the face, body and extremities. These lasted several minutes, respiration ceasing absolutely, the pulse becoming slower. During several of these seizures the child turned livid, and during one attack the heart-beat disappeared entirely for several seconds. The last convulsion of any severity occurred at about 12 o'clock, midnight, after which the child rested quietly but was still unconscious.

Having nothing at hand, and the child being unable to swallow, I made a rectal injection of a teaspoonful of strong, warm coffee. Tickling the throat, etc. did not produce vomiting, and as the dose had been given so long before my arrival, I did not persevere at the attempt at emptying the stomach. Rectal injections of the following were next given: Potassium bromide, grs. 1½; whisky, 10 drops; water, ʒj. Four injections were made, the last at 2 A.M. Artificial respiration was made while the breathing stopped. The child at this time was still unconscious; pupils less contracted; respirations deeper and regular; pulse, 70. I returned at 8 A.M., found child still unconscious. Ordered a warm bath and a rectal injection of soap water.

At 2 P.M., bowels had moved after second injection. Urine had passed at 9 A.M.; it was very scanty and high-colored. None since. The child was now conscious but very feeble. I ordered spirits ætheris nitrosi, 2 drops every hour till urine was passed. After the third dose urination followed. I also ordered breast-milk given with a spoon every half hour.

By 9 A.M. next day the child was well, stronger, and ursed when put to breast. Bowels and kidneys were acting normally.

My excuse for reporting this case is the extreme youth of the patient, the severity of the symptoms and the ultimate recovery, under very simple treatment.

TRANSLATIONS.

FROM THE FRENCH AND GERMAN.

TRANSLATED BY F. NEUHOFF, M.D., ST. LOUIS.

Treatment of Diarrhœa.

Any article shedding light on the treatment of chronic diarrhœa is always welcome. We, therefore, translate below the experience of Polyak (*Cour. Med.–L'Union Med.*) concerning the diarrhœa of phthisical patients. What is applicable in this class of cases, must, of course, be equally applicable in the diarrhœa of the non-phthisical.

Polyak experimented with talc and lactic acid. He gave to comsumptives 250 grammes (ʒvijss) of talc in twice the amount of milk. As a rule, the diarrhœa stopped after a few days, but reappeared on discontinuance of the treatment. The patients did not object to the taking of the talc, but after taking it continually for 7 days they experienced a feeling of oppression in the epigastrium, which necessitated discontinuance of the medicine.

The author does not think that the prolonged use of talc would cure the intestinal ulcers.

The results with lactic acid were more favorable. A dose of 1.86 grammes (gr. xxvij) was given in 120 grammes of milk. This dose was gradually increased to 4.50 grammes daily. On the third day the diarrhœa and pains usually disappeared. On the fifth day the stools became normal.

It was found well to continue the acid in small amounts for some time after the disappearance of the diarrhœa.

The patients bore the lactic acid well and experienced no unfavorable secondary effects from its use unless unduly prolonged.

Dr. Polyak thinks that by its employment even intestinal ulcers may be healed.

Placenta Prævia.

Braxton Hicks lays down the following rules as regards treatment:

1. The diagnosis of placenta prævia once established you must terminate labor with the least possibly delay.

2. When the operation has been commenced you must not leave your patient until it is completed.

3. When the cervix is completely dilated and the placenta is marginal, it is necessary to break the membranes, and see whether the head is pushed toward the neck during the pains.

5. If the head descends slowly, employ the forceps or perform version.

5. If the os is small and is more or less covered by the placenta, the latter should be cautiously detached around the whole circumference of the os. If there is no hæmorrhage delay of one or two hours is permissible. If the os is not dilated and if you have no dilator at hand, you may dilate the cervix manually. If you think that the forceps may be easily applied, it is well to apply them. If not it is necessary to do bi-polar version by the combined internal and external method. The cervix is thus tamponned by the legs or breach of the child. After this the treatment is the same as for any case of foot or breach presentation.

6. If the neck is small, and if you have neither forceps nor dilator, version must be done.

7. If during the manœuvers here mentioned, a violent hæmorrhage occurs version must be terminated by extraction of the fœtus.

8. When the fœtus is dead, or when labor comes on before the end of the seventh month, it is necessary to do version and leave the rest to nature.—*Gaz. Med. de Liege–L'Union Med.*

Treatment of Uterine Fibroma.

To women suffering from uterine fibroma give 50

centigrammes of powdered savin on an empty stomach in the morning. Continue this many years, only suspending the remedy during 3 weeks every 2 months. Have the patient remain in bed during the monthlies. Under this treatment the pains cease; the fibroids diminish; the calls for urinating become less frequent; constipation disappears and the menses become regular.

During the June season a sojourn of from 5 to 8 weeks at the thermal springs (*e. g.*, Kreutznach) is advisable.

At the beginning the mineral water must be taken diluted with ordinary water.—*L'Union Med.*

Complete Cure of a Case of Acute Tabes.

Fournier reported the following history:

A man, æt. 36, had become syphilitic in 1879. He had late symptoms even in 1887. For 3 years patient had been free from symptoms, when in December, 1889, he was taken with pain in the kidneys and legs.

In 1890, patient had lightning pains in the lower limbs; enfeeblement of the genital functions, difficulty in walking, fatigue, diminished sensibility and abolition of the patellar reflex. At this time anti-syphilitic treatment was applied (mercurial inunctions and iodide of of potash 6 to 8 grammes). In March the patient was completely cured.—*Le Bull. Med.*

Liniment for Burns.

℞ Iodoform, - grammes 5 (gr. lxxv).
Ol. amygdal dulcis, " 90 (ʒij ʒvj).
Aquæ calcis, - - " 10 (ʒijss).
M. ft. Liniment.

If there are vesicles we must draw through them, lint soaked in the above liniment.

The burnt area must be covered with antiseptic wadding steeped in the above solution and held in place by a bandage.

This dressing should be preceded by a bichloride wash.—*L'Union Med.*

Treatment of Chilblains.

In cases of chilblains of the hands, Brocq advises the following treatment:

1. Bathe the hands in a decoction of walnut leaves; then wipe them.
2. Rub them with camphorated alcohol.
3. Dust them with the following powder:

℞ Bismuth subnitrat, - - parts 10.
Amyli, - - - - - " 90.

4. To calm the itching in the evening when it is too severe rub with,

℞ Glycerine,
Aquæ ros., - - aa 50. (ʒjss).
Tannin, - - - - .10 (gr.jss).

After using this powder with No. 3.

5. If they are ulcerated, envolope them with walnut leaves soaked in warm water.—*Le Bull. Med.*

Chloroform in Neuralgia.

Stedman has used deep injections of chloroform in 8 cases of neuralgia. From ½ to 1 gramme (♏vij to xv) were injected and procured relief lasting about 24 hours. No bad local effects, except slightly painful œdema, were noticed. In two cases a complete cure resulted.

The most rapid cure was obtained in a case of sciatica in which the chloroform injection was followed on the next day by an injection of one-sixth of a grain of morphium.—*Deut. Med. Zeit.—Wein. Klin. Woch.*

Salve for Anthrax.

℞ Ichthyol, - - - - parts 4.
Cerat. camphor, - - - " 15.
M.

A layer of the above is applied on the anthrax three times a day. The whole is then covered with antiseptic cotton. On the following day the solid stick of the lunar caustic is applied in all the white points where there is suppuration.

The author claims that ichthyol diminishes pain and favors the separation of the core and the progress of cicatrization.—*L'Union Med.*

Treatment of Chronic Constipation.

Flatau has cured 40 cases of chronic constipation by the following procedure: He separates the bullocks and unfolds the radiating folds of the anus. On the mucous membrane thus exposed he dusts daily a few grammes of boracic acid. The irritation thus produced suffices, as a rule, to awaken intestinal peristalsis. If applying the powder as above intimated does not suffice the author deposits it in the rectal pouch by means of an insufflator.—*Le Bull. Med.*

Metritis.

M. Polaileon read a report on a work of Doleris entitled: "Metritis of the Body and Neck of the Uterus."

Doleris defends the practice of curetting and sponging out the uterus in cases of metritis.

Curetting ought to be reserved for the most grave cases. It is done with either a dull or a sharp curette. The former is sufficient in slight inflammation of the mucous membrane of the body of the uterus. In metritis of the neck a sharp spoon, or curette, or even a kind of scraper is employed to scratch out the sacs of the glands.

Out of 700 cases which were curetted by Doleris, 62% were cured; with cauterization Polaillon has had 82% of successful cases.

Curetting fails if the uterus is displaced, or the annexes are diseased, while cauterization is able to succeed in these cases.

Doleris speaks against cauterization as an agent liable

to produce atresia of the neck and sterility. Polaillon has never seen these accidents occur. He extols the employment of caustic, which is easy, needs no anæsthetic, no very careful antiseptic precautions and gives excellent results. For curetting, on the contrary, it is necessary to lower the uterus after having dilated it; the patient ought to be anæsthetized and sometimes the operation ought to be completed by cauterization by means of a brush or a sponge.

Charpentier regards antisepsis as essential in all operations on the genital tract of women. He does not distinguish between great and small curetting. He states that limiting the interference to the cervix fails to cure the patient. If the metritis is inveterate it is necessary to do Emmet's operation.

Curetting may still be useful even when there is chronic inflammation of the uterine annexes. When the sharp curette is employed scraping should be continued until "the cry of the uterine tissue is heard." After this, a mixture of equal parts of creosote and glycerine should be applied. Curetting has the advantage of being painless.—*L'Union Med.*

Phanacetin in Acute and Gonorrhœal Rheumatism.

In the treatment of acute articular rheumatism with phenacetin, Dr. Rifat (*Bull. Gen. de Therap.*) begins with a daily dose of 3 grammes, divided in such a manner that 0.50 may be given every 3 hours. This dose is not sufficient for a cure; but it serves the purpose of showing how the patient bears the medicine.

On subsequent days the amount of phenacetin taken in 24 hours is increased by one gramme every day. Improvement begins usually when the daily dose amounts to about 6 grammes. Occasionally it will be necessary to go as high as 8 grammes. The dose which causes improvement is continued from 3 to 7 days. The daily dose is then gradually reduced to 3 grammes. This latter amount is continued about 1 week. The time required for a cure varies from 17 to 21 days, according to the intensity of the disease. According to Guttman salicylic acid requires 35 days for a cure.

The disagreeable effects to which phenacetin is able to give rise are profuse sweating, cyanosis and uræmic phenomena.

In the 16 cases reported by Rifat sweating was only observed during the first few days. As soon as the temperature became normal the sweating disappeared.

Cyanosis must be rare as it did not occur at all in Rifat's cases. Uræmia was observed in 1 case, an old woman, æt. 65, who had taken salicylic acid without any effect. She improved under the phenacetin, but on the fourth day showed symptoms of uræmia which vanished after the use of purgatives and caffein. Afterward 1 gramme of phenacetin was taken without inconvenience.

Rifat found phenacetin efficatious in 3 cases of gonorrhœal rheumatism, in which salicylic acid had proved powerless.—*Deut. Med. Zeit.*

WEEKLY MEDICAL REVIEW.

BRANSFORD LEWIS, M.D., Editor. W. C. MARDORF, M.D., Associate Editor.

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Acute Delirium an Infectious Process.

In a paper read before the Philadelphia Neurological Society (*Medical News*) Dr. James H. Lloyd treats of a disease concerning which we have not much definite knowledge, especially as to its pathology, and endeavors to class it as an infectious process. The disease has been differently described by various authors but its characteristics are delirium and rapid exhaustion; among the many names which it has received the most common are, probably, hypomania, Bell's disease, delirium grave, acute delirious mania and delire aigu, of French writers. Dr. Lloyd believes the morbid process is not much different from delirium of typhoid fever and other infectious diseases; the manifestations of the disease are much the same. According to its causation the disease has been described under special names, as puerperal mania, post-febrile insanity, post-operative insanity, septicæmia, exhaustion from overwork, sewer gas and other poisoning.

Cases differ greatly as to the symptology and severity, but the grouping of the former in certain particulars will enable us to class the disease. The mental symptom is usually wandering delirium; sometimes the attention can be momentarily arrested, but only for a short time; hallucinations, both visual and aural, may be present. All grades of severity are to be observed, up to complete stupor and coma. The physical state is usually that known as typhoid, and the longer the acute stage the more marked this state becomes. Sores form and the tongue becomes dry and brown, the breath is offensive. The pulse is rapid and compressible and there are muscular unsteadiness, tremor and incoordination.

There is occasionally an irregular rise of temperature. There may be no involvement of the intestinal tract, save, perhaps, aversion to food and retention of fæces. In puerperal cases it is sometimes impossible to find a focus of septic infection, though the disease is in all probability the result of infection.

In some of the cases, such as are called post febrile, seen in scarlatina, small-pox and typhoid fever, the early stage of the delirium begins when the infection is at its height and the condition is regarded merely as the "delirium reaction" so often observed, but in truth the two states are probably one and the same, differing only in degree. Although the fever subsides the mental condition may continue and may assume the form known as confusional insanity, or insanity of fixed de lusion, or, more rarely dementia. These cases may guide us to properly understand other similar cases in which the element of infection alone is lacking apparently and can only be surmised.

Some of the cases are exceedingly difficult of diagnosis, and may present symptoms of meningitis, or meningeal irritation. Dr. Lloyd thinks that no one theory can cover all cases. He believes that many of the causes assigned by the text-books are entirely inadequate for the production of this condition, as, for example, anæmia, exhaustion, mental and moral shock or strain, such as grief, fright, worry, etc.; these are doubt less only contributory causes. In the exanthematous and puerperal cases an infectious poison is probably the immediate exciting cause, and that this is the case is to be shown only by a better knowledge as to sepsis in such cases.

We have cases, however, beginning with a sudden explosion of delirium, without any recognizable source of infection, and here we can only speculate on the etiology.

Though it is too early to formulate any decided conclusions, the symptoms point in the direction of an irritant poison as the cause. The investigations which Bevan Lewis has made into the morbid anatomy of the brain also seem to point in the same direction.

The Toxicity of Urine in Infectious Diseases.

The question as to the toxicity of normal and pathological urine is still a much disputed one; if urine is toxic, we know nothing of the varying grades of toxicity it assumes under different circumstances, or of its manner of action. Some recent experiments made by Dr. Edvardo Bonardi, of Pisa (*Arch. Ital. di Clin. Med.—Deutsch. Med. Zeit.*) may tend to throw a little light upon this rather obscure subject. The experiments consisted in injecting normal urine and the urine of various infectious diseases into the tissues of rabbits, and observing their effects; they led to the following conclusions:

1. The toxicity of the urine is not caused by any specific toxines belonging, or related to the group of leucomaines.

2. In the urine of persons suffering with pneumonia and acute articular rheumatism sufficient amounts of leucomaines occur to give their general reaction and to leave appreciable amounts of their crystallized products, but the amounts are by no means large enough to explain the great toxicity of the urine.

3. In the urines of measles and miliary tuberculosis we find, as in normal urine, no trace of leucomaines.

4. The toxicity of the urine of pneumonia and acute rheumatic arthritis is much greater than that of normal urine, especially in the stage of resolution.

5. The urine of miliary tuberculosis has the same degree of toxicity as normal urine.

6. The products of the distillation of pneumonic urine cause but very slight signs of intoxication.

7. The poisonous symptoms produced by urine are due chiefly to urea or potash salts.

8. The amount of potash in the urine is much increased in pneumonia, especially in the stage of resolution.

9. If we inject into the animals artificial mixtures of urea and potassium chloride in the same relative proportions to which these substances are found in the urine, we get symptoms of poisoning very analogous to those produced by urine.

10. To the urea we must ascribe the convulsion and convulsive movements, to the potash the general depression and the bulbar paralytic symptoms. The other toxic manifestations must be credited to the cumulative and reciprocally modified workings of these substances and to the other less important constituents of the urine.

11. The varying powers of resistance of different animals must be conceded to explain, to a considerable extent, the modified intensity, the length and the termination of the intoxication.

Old Age and Surgery.

In a recent number of the *Medical News* we find an interesting paper on old age as a factor in surgery, by N. F. Graham, M.D., of Washington, D. C. The changes in the tissues and organs of the body which accompany old age are believed, both popularly and by a large part of the profession, to constitute almost impassable barriers to recovery from surgical diseases of a grave nature. This idea is being greatly modified by the profession, and people are beginning to appreciate that old age of itself does not necessarily imply that there is little power to recover.

Briefly stated, the changes which occur with age are as follows: The cells become smaller without change of structure; the spleen and lymphatic glands, as well as the villi and glands in the digestive tract, diminish greatly in size. Later on we have fatty degeneration of the muscles, nerves, vessels and glonds, and calcareous

deposits in the muscles, ligaments, cartilages, heart and blood vessels; at the same time these changes work a gradual impairment of all the functions of the body. In inflammation the same changes take place in the cells and bloodvessels as in younger subjects, although the cellular elements are lesser in size.

The cellular structures of the old will return to the embryonic state; though not so quickly as in younger subjects, yet with as much certainty. While the other nutritive forces are failing, those connected with repair remain in quite a good condition.

As there is a strong tendency to diseases of the heart and vessels, shock is not so well borne, and the reaction from it is but feeble and slow. If, however, the heart and nerves are found sound, and the pulse is firm and regular, there need be no hesitation in operating.

Aside from this, there are certain conditions of the body which give the aged a positive advantage over the young. Excitability is lower and slower. They are not so liable to hæmorrhages, whether primary or secondary, or to acute inflammatory troubles. Sensation is more obtuse, and they are therefore not as subject to acute nervous affections, such as tetanus and painful muscular spasm, as are younger subjects.

Though the number of cases of surgical disease requiring operation after the age of 70 is not large, yet, when they do occur, operative measures are apt to be declined on the plea of old age; but if the patient's general condition is fairly good, and there is hereditary tendency to long life, the plea is a very poor one, whether the object of the operation be to prolong life or to relieve suffering.

The aged tolerate pain better than the young, and they endure operations for pathological conditions, such as the removal of tumors, cancers, etc., very well, because there is a certain tolerance to the gradual change and tissue metamorphosis which render the operation necessary. They do not recover from wounds so rapidly, because the tissues are more rigid and the softening process of inflammation is slower. Tissue-genesis predominates over suppuration, and there is less waste from pathological conditions. The tissues being less excitable, the process of repair can take place more readily, and the recuperative powers are improved.

To sum up, the greatest danger to the aged from surgical operation lies in shock, and if the patient rallies the prognosis may be considered good, so far as repair is concerned.

MEDICAL ITEMS.

Dr. F. J. Lutz, of this city, has been made Chief Surgeon of the Frisco Road. Vice, Dr. J. H. McIntyre, resigned.

The Price of Quinine.—It is said that the price of quinine has been reduced to twenty-five and thirty cents per ounce. Come down another peg, Messrs. Pharmacists!

Acetanilid in Chancroids.—A Russian physician reports the successful use of acetanilid upon chancres both hard and soft. He says acetanilid is as serviceable as iodoform, and it is free from objectionable odor.

A Good Reform if it Carries.—The Marion County, O., Medical Society recently decided to ask the Legislature to enact a law prohibiting druggists from refilling prescriptions unless ordered by the prescribing physician.

Epilepsy from Depressed Fracture of Skull.—An interesting case, reported by Dr. W. A. Lane, in the *Lancet*, is that of an infant in whom a depressed fracture of the skull was produced by the use of forceps at birth. Epileptic convulsions afterward appeared, and were much relieved by removal of the depressed bone.

Dr. James A. Lydston, late Chief of Eye and Ear Department Pension Bureau, Washington, D.C., and Professor of Chemistry in the Chicago College of Physicians and Surgeons, has removed to Denver, Colo., where he will re-enter the practice of his specialty.

This change of location has been necessitated by the illness of his wife.

A Fishbone in the Rectum.—In the *Lancet*, Dr. Henry Lee reports the case of a man who had been under treatment for dysentery for about two years and a half. On examination a fishbone was found in the rectum about two inches above the anus. It was about two and a half inches long and was impacted across the bowel. The patient recovered rapidly after removal of the bone by means of long forceps.

Pernicious Vomiting in Pregnancy.—Flaischlen reports five cases of pernicious vomiting in pregnancy, of which three perished. In two cases, induced abortion resulted in prompt relief to the patient, while two of the fatal cases were lost in spite of this resource. Flaischlen believes that, as a rule, the uterus is emptied much too late in these cases. He regards a very rapid pulse as the most important indication of danger, and would base his decision regarding the necessity for interference largely upon this symptom.

Novel Surgical Treatment of Exophthalmic Goitre.—Dr. Lencke, of Hamburg, reports two cases of exophthalmic goitre in which surgical treatment of goitre produced "great relief" of symptoms. The first patient was a lad, æt. 17, who had the classical symptoms of the disease—rapid heart, palpitation, prominence of the eyes, and goitre. He came under treatment on account of a sudden access of the swelling, which by the pressure it exerted produced great distress with extreme cyanosis. The heart was rapid and irregular, no rest or sleep could be obtained, and the patient was in imminent danger of asphyxia. Tracheotomy was performed, and a week later one-half of the tumor was ex-

tirpated. The operation was accompanied by much hæmorrhage, which, however, stopped spontaneously, and recovery was uninterrupted. The symptoms rapidly vanished, the exophthalmos disappearing, and the heart becoming quiet and regular in action. The improvement was maintained until the time at which the paper was written.

The second case was that of an older patient, and was attended with similar results.—*Medical Record.*

Treatment of Gangrenous Wounds.—Dr. Bedford Brown recommends the following solution as a disinfectant, deodorizer and stimulant in this class of cases:

℞ Zinci sulphatis, - - - - - ʒj.
Aquæ, - - - - - - xii ℥j.
Acid sulphuric, dil., - - - ʒss.—M.

After the free application of hot water—110°F.—this solution is applied every three hours on bits of raw cotton. In the course of two days, the sloughs separate rapidly, leaving a perfectly clean, healthy basement for granulation. This solution evidently possesses active antiseptic properties. The author has also employed with success in gangrene, especially in hospital gangrene or gangrenous erysipelas, solutions of bromine, and finds them an excellent disinfectant.—*Virginia Medical Monthly.*

The Physiological Action of Sulphaldehyde.—Sulphaldehyde, produced by the action of sulphuretted hydrogen on ethylic aldehyde, occurs in the form of an oleaginous liquid of a repulsive odor, solidifying slightly below the freezing-point. Treated with acids, sulphaldehyde is transformed into a solid, the point of fusion of the various articles of commerce varying in accordance with their greater or less purity. Its analogy in composition to paraldehyde led Dr. Lusini to test the physiological action of the sulphaldehyde, administering it by injections intra-peritoneally, and into the stomach of rabbits and frogs (*Les Nouveaux Remedes*).

It appears that sulphaldehyde produces profound and tranquil sleep without any phenomena of excitation. On account of its insolubility, some time is required before its effects follow its administration; nevertheless, it is claimed to be much more energetic than paraldehyde. It is eliminated completely by the urine, to which it gives its characteristic color.—*Therapeutic Gazette.*

A State Institution for Drunkards.—The Massachusetts Legislature enacted a law two years ago for the establishment of a State institution for drunkards, or to use the scientific euphemism, inebriates. The statute incorporates this institution, giving $150,000 for 200 beds, and provides that certain habitual drunkards, or, in the words of the law, dipsomaniacs and inebriates, may be committed to it in a manner similar to the present commitment of the insane to insane asylums. It may be considered as between a prison and an asylum. Although legally an asylum, or rather, in the words of the statute, a hospital, it is regarded by the trustees as medically a prison. Any person there confined, except voluntary patients, may be held as long as the trustees think best, within limitations similar to those in force in regard to inebriates in insane asylums. The trustees have bought a farm near Foxborough, with about thirty acres of good farming land, and have made contracts for the erection of buildings on the cottage plan. The Superintendent is Dr. Marcello Hutchinson. Such an institution was started in this state some years ago at Binghamton, but it utterly failed to accomplish its purpose.

Mollin, a New Ointment-Base.—Dr. Julius Kuhn writes to the *Berliner klinische Wochenschrift*, No. 36, 1890, regarding the objectionable features of some of the ordinary excipients for ointments. Almost all animal fat, he says, becomes rancid; lanolin is too tenacious for inunction purposes, will not dissolve chrysarobin, and will not subdivide mercury fine enough; vaseline is better in some respects, being more permanent, but it takes up some substances with difficulty, and in hot weather is soon too fluid on the skin; moreover, some specimens of it contain so much of impurities as to be irritating to the surface treated. In 1885, Unna pronounced it as his opinion that the best ointment-base was soap, but it has not always been easy to find a pasty soap that would remain unaltered at ordinary temperature, have penetrating qualities and mix well with the curative ingredients proposed to be used. A soap has been made by the druggist Carez, called mollin, which is said by Kuhn to meet all these requirements. Mollin appears to be a superfatted soap, holding 17% of fat in excess. It contains a little cocoa-nut oil and about 30% of glycerin, besides kidney-fat tallow, and soda and potash mixed, chiefly the latter. It is said to keep unalterated for years. It is put up in two forms, one a little harder than the other.—*N. Y. Med. Jour.*

LITERARY NOTES.

The Home-Maker.—The February number of this magazine surpasses, in our estimation, the previous ones, both regarding literary merit and excellence of illustrations.

Among the contributors we note the following names: N. G. McClelland, Minerva Parker, Frederick Starr, Rebecca L. Wright Bonsat, Helen Leah Reed, Alice W. Moore, Emma Moffett Tyng, Luizi Conforti, M. E. Paull, Edith Miniter, Emma W. Babcock and others.

The article describing and illustrating Typical Homes of America is an especially attractive one.

Headache.—A patient who had constant headache, dating from exposure to the sun on a very warm day, was given, by Prof. DaCosta, acid. hydrobromici, ʒss-j, three times a day.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, February 7, 1891, the President, L. Bremer, M.D., in the Chair.

Dr. Bond.—The subject of vesico-vaginal fistulæ is one that has not lately received much attention, by discussion or by the pen, and it is an affection which to the sufferer is almost intolerable. The condition of a woman with water constantly escaping from the bladder through the vagina, occasions a degree of discomfort almost inexpressible. Considering the great difficulty that in many cases is encountered in relieving this condition, it is important that these gentlemen who attempt to operate for the cure of vesico-vaginal fistulæ should have a clear appreciation of special conditions that might prohibit or prevent the best results.

During the International Congress that met at Washington City, special attention was directed to the influence of constricting bands in the vagina in compromising successful results, by a very elaborate paper, read by Dr. N. Bozeman, of New York City, on this subject. In it he emphasized the necessity of dilatation by means of sponges inclosed in rubber bags, and introduced into the vagina, and also the necessity of dividing any cicatricial bands that distorted the parts and prevented ready access to the fistula, on which he desired to operate, or that might produce undue tension upon the sutures after they were placed.

An illustration of the value of these instructions was found in the case of a lady commended to him who, for several years, had suffered from a vesico-vaginal fistula, resulting from a protracted labor. She had already been operated upon, but unsuccessfully. The fistula was an inch and a half in length across, and high up in the vagina, close to the cervix, and considerably removed from the arch of the pubes. The finger being introduced discovered a cicatricial band, the sequel of a posterior laceration of the cervix. In consequence of the vaginitis, cellulitis and pelvic peritonitis that had occurred a firm union had taken place between the posterior portion of the cervix and the posterior fornix, and by the same process the cervix was drawn high up in the vagina, toward the sacrum, in which the utero-sacral ligaments were also implicated. It would have been utterly impossible to make a satisfactory operation, had not the constricting, cicatricial bands been first divided. On December 18, this band was divided, the cervix thoroughly liberated and several cicatricial bands in the lower portion of the vagina, that had a tendency to constrict the vagina laterally, were divided, and by that means more space was gained. The amount of bleeding was so great as to obscure the field of operation and prevent the completion of the operation at the time; this was postponed only till the bleeding had entirely ceased, and before the healing process had been instituted to any great extent, or before a cicatrix had formed. Accordingly, three days after the preliminary operation, the operation was continued, the patient being placed on her back. A vulcellum was engaged in the anterior lip of the cervix, and the fistulous opening readily brought down near the orifice of the vagina; in this position of the part no trouble whatever was experienced in performing the operation—denuding the margins of the fistula and passing the sutures. Eight or ten silk sutures, antiseptically prepared in a 2% solution of carbolic acid, were inserted. The patient was kept upon her back for more than twenty days, with a soft rubber catheter constantly in the bladder, but frequently changed, no catheter being permitted to remain in the bladder more than four hours. Though the patient was an exceedingly nervous, sensitive individual, she yet bore the presence of the catheters very well. About a week after the operation was performed, a slight leakage through the vagina was observed. The stitches were not removed, however, until the tenth day, when the union was almost complete; so complete that the point through which the water escaped could not be detected; and though assured that contraction would continue and would result in the entire arrest of the escape of water, prudence dictated the continued use of the catheters that the bladder might not be distended, and thus union be retarded. The result was all that could be desired, the woman recovering entirely from the fistula.

The secret of the success of J. Marion Sims, one of the pioneers in this department of surgery, was attributed to the fact that he used silver wire sutures. At that time the agency of sepsis in vitiating operative results was not distinctly recognized; nor was it understood why success seemed to follow the use of silver wire sutures, while failures attended operations in which the silk or any other form of suture was employed. Now it is well established that when silk sutures, antiseptically prepared, are used, the result is just as good or better than after the use of silver wire, with the additional advantage of being more easily manipulated.

The speaker stated he desired to call especial attention to the importance of a thorough division of the cicatricial bands. In the case under consideration the approximation of the margins of the fistulous opening could not have been accomplished with security, without first dividing the cicatricial bands, because the tension induced by the operation would, of necessity, be thereby superadded to that already existing in the anterior vaginal wall. This omission was unquestionably the reason of the failure of the operation previously performed, which became apparent on the second day thereafter, the sutures having cut through the tissues.

Dr. A. H. Meisenbach.—The non-union in such cases as have been referred to by Dr. Bond may occur from the factors assigned, or it may be due to the fact that the fistulæ may be in situations not readily accessible through the vagina. The speaker said, when in Baden, he had an opportunity of seeing a patient upon whom Trendelenburg had operated for vesico-vaginal fistula. He places his patients in the position for sec-

tion of the bladder, the so-called Trendelenburg position, viz., by elevating the hips very high, and letting the head hang down on an inclined plane, by this means the weight of the intestines gravitats from the bladder, and this very materially enlarges the space, by reason of the traction made by the abdominal viscera on the peritoneum. (In this position he cuts down on the bladder and has had great success by using this position also in operations for stone.) Having a patient suffering from vesico-vaginal fistula, so located that it was impossible to reach it satisfactorily through the vagina, he hit upon this very novel way of opening the bladder; placing the sutures and re uniting the wound on the vesical surface, and then, having introduced a catheter, the operation was complete; a perfect result was obtained, as he saw the patient ten or fourteen days after. Trendelburg tested the bladder for continuity, by injecting from four to six ounces of water, and it held the water perfectly. Silk sutures were used and tied in the bladder, the suprapubic method being adopted.

In operations where very firm apposition of the parts is desired, catgut is not always to be trusted, for the reason that great force must be exerted to bring the parts together, and, besides on account of its absorbent qualities, one cannot be sure that he has tied the sutures tight enough and that in a little time the suture may not absorb moisture and, in consequence of the loosening of the knot, the sutures become loosened. It is very difficult to handle wire sutures, from the fact that correct apposition of the edges of the wound can not with confidence be obtained with it; the use of a certain amount of force in applying it often produces laceration of the tissues; failures are, therefore, often due not to the wire but to the lacerated tissues. It is very hard to determine just exactly how hard to apply the wire.

Dr. William Johnston observed that Dr. Jobert, of Paris, operated for this affection in 1837; Sir James Young Simpson later on adopted it, and Dr. Bozeman still later operated, but not by the same procedure as Dr. Sims.

Dr. Bond.—It is a fact, sir, that to Dr. Sims is due the just credit of popularizing the operation for vesico-vaginal fistulæ. He first operated upon negro women in the South, and, after achieving numerous successes, went to New York and there taught the physicians his method of operating for this affection. He afterwards went to Paris and successfully operated on Empress Eugenie, after European surgeons had failed, and thus acquired a world-wide reputation in consequence of his success.

As to the position that Dr. Meisenbach mentions in regard to the operation, one insuperable objection to the method of the procedure of Trendelenburg would be the impossibility of removal of the sutures; for these, if allowed to remain in the bladder, would constitute nuclei for the aggregation of the salts of the urine and thus stones would be generated, unless the suprapubic opening was left open until the sutures could be removed. What is the method of getting rid of the sutures?

Dr. Meisenbach responded.—The suggestion of leaving the suprapubic incisionopen until the sutures could be removed would be a procedure perfectly feasible. Only about ten days are required to secure a firm union if the operation has been successful; and as regards the formation of calculi, even should they generate, their removal by modern devices of surgical art is very readily accomplished.

Dr. Blickhahn.—The specimen I present for inspection was from a patient of Dr. Pohlman's, who was kind enough to furnish me the clinical facts. Dr. Edward Evert, who made the autopsy, has kindly detailed the post-mortem appearances. This heart and its aorta belonged to a man, æt. 30, a blacksmith by occupation. He had always been in good health, with the exception of a cough, which occurred several years ago, due to bronchitis, the result supposedly of inhalation of dust and smoke while following his occupation; the cough while it continued was quite severe but disappeared completely under treatment for the bronchitis. On January 31, the patient worked as usual,and in the evening went to the Union Depot to meet a relative. He drank several glasses of beer, appeared in good health and spirits and retired about 11 P. M. Early Sunday morning, Feb. 1, he awoke suddenly with great pain and dyspnœa. Dr. Pohlman was sent for and on arrival found the patient cyanosed and suffering from great dyspnœa, cold extremities, no radial or temporal pulse and only a slight undulation of the carotids. The patient's condition forbade much physical exploration, and no accurate diagnosis of the diffidulty was attempted, the attending physician believing death about to ensue and so informed his friends. He, however, injected ether and whiskey subcutaneously, remained with the patient about an hour and then left expecting on his return some hours later to find his patient a corpse. By afternoon, however, the condition of the patient was greatly improved, the pulse was perceptible, the cyanosis less and respiration less embarrassed, etc. His improvement was steady, and the patient in a short time insisted he was well and wanted to go to work a day or so later. The doctor objected, as he had not satisfactorily diagnosed his malady, the symptoms being still very grave, and insisted on the patient remaining in bed. The third day the patient got up and walked about the room, feeling, as he said, perfectly well. He awoke in the night, however, of Tuesday or Wednesday, with great dyspnœa. Dr. Pohlman was again summoned, but the patient died before he arrived.

The post-mortem revealed nothing of special import until the pericardium was opened. The heart sac was bluish in color and when opened was found filled by a large coagulum; through this the heart was reached and lifted out; the heart was replaced and examined from the outside. There was dilatation of the aorta, and inside the sac just after the aorta leaves the heart, there

was observed an aneurism and a small irregular opening of the size of a small pin's head, from which the hæmorrhage had taken place. The heart otherwise was found in a healthy state.

Dr. Bond inquired.—Can Dr. Blickhahn give the history of the case as to the possibility of syphilis on his part or that of his parents?

Dr. Blickham replied.—From hearsay I learned there was no syphilitic history in the case, though the gentlemen who saw the case earlier, and made the post mortem, were of the opinion that there might have been syphilis.

Dr. Bremer.—The question of syphilis is always the one that is uppermost in the mind of an inquirer after truth in such cases. He believed that there is almost no case of diverticulum of the heart, as it was formerly called, or aneurism, which could not be traced to syphilis, not a well authenticated case. In most cases syphilis, either hereditary or acquired certainly is the cause. He had known a case of hereditary syphilis in which the individual died from aneurism of the aorta; that was the only case he had met with in his own practice.

Dr. Broome said that some casss of aneurism are met with which clearly are not due to syphilis, nor to any known cause. He had now under observation a case in which there is positively no history of syphilis, though the etiology is obscure. The aneurism is from the arch of the aorta and of enormous size, larger than any heretofore recorded. Subjective symptoms had been manifest for a year and a half, but a palpable tumor appeared only about one year ago. Its increase in size has been so rapid and great that pressure on the thoracic walls has occasioned absorption of the entire anterior halves of six ribs, a portion of the sternum and also the sterno-clavicular articulation; the sternal extremity of the clavicle being pushed up against the thyroid cartilage. The patient now complains but little of pain, but previous to the escape of the tumor beyond the contour of the thoracic wall, his sufferings were very great in consequence of the mechanical pressure exerted by the aneurismal tumor within the thoracic cavity. The doctor endeavored to introduce a silver wire into the sac, but owing to the presence of septa within its cavity the resistance was greater than could be overcome without the employment of undue force. Ordinary piano wire is probably the best, of which from ten to twenty feet might be introduced, so large is the sac.

Macewen claims to have returned several patients to hard work, apparently completely cured of their aneurismal tumors, by his method of treatment. This consists of the introduction and retention of a long needle into the sac, just deep enough to strike the opposite wall. The needle is thus practically suspended in the sac, and in consequence of the motion of the blood current being thereby rendered tumultuous and disseminated, irritation is set up in the vessel-walls and infiltration with leucocytes is induced. This process continuing, superimposed secretions of fibrine are generated and a partial thrombosis progresses until complete occlusion of the sac occurs.

The method suggested is simple, besides devoid of danger, and appears to be full of promise.

Dr. Cadwallader stated he had in his possession a specimen taken from a patient, who gave a rheumatic history of several years' duration, with a marked disturbance of the heart. He discovered, in making a post-mortem, an aneurism or diverticulum on the superior surface of the left ventricle as large as a walnut. The patient died with some other trouble unconnected with it.

Dr. Bremer said. There is no poison circulating in the human body, nor is there any factor that tells to such a degree and with such an intensity upon the vessels, as does syphilis; and next to syphilis comes alcohol. The syphilitic lesion is very frequently confined to the muscular layer of the vessels. The muscular layer is infiltrated and, in consequence, there is a shrinkage of the muscle fibre; there being no muscular power, no elasticity, the blood pressure will have the effect of pushing out and dilating the connective tissue membrane. In that way miliary aneurisms when they occur in the brain prove very frequently fatal. In the same way the larger aneurisms are formed. It is true that traumatisms are sometimes the causes of aneurisms which may not at the time be noticed, but the so-called idiopathic aneurisms are probably all due to syphilitic infection which in a great many instances is a matter unknown to the patients themselves.

Dr. Bond.—Did I understand the President to say, that the retrograde metamorphosis, incident to syphilis was represented by the conversion of the muscular element into connective tissue?

Dr. Bremer.—The muscular elements disappear at the site of the lesion and very frequently in the muscular coat; such is the case in gummata, for instance. The gummata afterward break down to some extent then connective tissue is formed; and the blood current, the vis a tergo, dilates the connective tissue which has been formed. When the connective tissue is in a fresh state —an embryonic, fibro-plastic state—it is very soft and can be pushed out and a pouch very easily formed.

GYNÆCOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE.

Stated meeting January, 1891, the President, Dr. Henry M. Wilson, in the chair.

Dr. W. P. Chunn related an instance of

Apparent Growth of the Placenta After Labor.

The patient was 28 years old and had been married five years. She had had no children at full term, but had had three miscarriages. The first and second miscarriage occurred at about the fourth month of gestation. The last miscarriage occurred about May 10, 1890. She had missed one period and believed herself to be about six weeks pregnant. On May 10, she began

to have bearing-down pains and hæmorrhage, with the expulsion of blood-clots, lasting some three or four days. Then the pain subsided, the hæmorrhage ceased, and I regarded the uterus as empty. On June 12, however, she was again seized with violent pains, and during the night was delivered of a placental mass, larger than a man's fist, which I saw the next morning. The patient, as well as myself, was surprised. The fœtus was searched for, but no sign of it found.

Dr. Thomas A. Ashby.—I have seen a somewhat similar case. The patient began to have hæmorrhages about the sixth week of gestation. She was not under my care at that time but I was called in four weeks subsequently, and she was then in the act of throwing off the fœtus. At the time of its removal the fœtus was apparently at the sixth or seventh week of gestation, and partly decomposed. The placenta was not affected by decomposition.

Before I saw her she had been going around, bleeding from this cause, and was not aware that she was about to abort. She had had five miscarriages between the sixth and eighth week in twenty-eight months, so she stated.

Dr. G. W. Miltenberger.—I have known the whole ovum to be retained for months after the death of the fœtus. In a recent case, the contents of the uterus were not thrown off till full term, though the fœtus was dead at the third month.

I cannot understand the growth of the placenta in utero after the death of the child; but I can conceive of the growth of the placenta outside the uterus on account of the peculiar relation of the blood vessels.

Dr. L. E. Neale.—I think it is very unfortunate that the specimen is not presented.

The placenta is not developed at the sixth week of pregnancy.

The conditions in extra-uterine pregnancy are very different from those in intra-uterine pregnancy, and what is true of one regarding placental development is not true of the other. I see nothing in the history of the case opposed to the belief that it was a very ordinary case of abortion (not miscarriage), with escape of the embryo, and more or less complete retention of the sac, chiefly chorion, that might have been removed by the curette long before it was ultimately expelled.

Dr. L. E. Neale read a paper upon

The Indications for Cæsarean Section.

This paper is intended to stimulate interest in, and discussion of, the subject Cæsarean section *vs.* craniotomy on the living child, upon which subject a series of papers will be presented by the members of the Society. It refers particularly to the indications for the section, and is a plea for this operation.

If it serves to arouse interest in examining pelves, or increase hesitancy in destroying children, the labor is not in vain.

Craniotomy upon the living fœtus is believed justifiable, but only as a dire necessity, not as an elective procedure, and should not be resorted to where there is a reasonable probability of success by the section, and the uncoerced consent of the mother can be obtained.

No man is compelled to do craniotomy upon the living fœtus solely upon the choice of the patient or her friends.

In answer to the question "what would you do if the patient were your wife, your sister, or a near relative?" he believed practically this must be a matter for each man's conscience, over which no dogmatic rules of science can or should have sway.

If seen early enough the induction of premature labor at the 32d to 34th week by the method of Krause, was a very strong antagonist to craniotomy upon the living fœtus. The range for this operation should not extend to a conjugata vera below $2\frac{3}{4}$ inches (7 cm.), or to one above $3\frac{1}{2}$ inches (8.75).

The indications for the conservative section included all insurmountable obstructions to the delivery of the living and viable child *per vias naturales.* They include tumors, pelvic exudations, hypertrophic elongation of the cervix, cicatrices, stenoses, tetanus uteri falsiform, uterine contractions, etc. He believed general opinion placed the limit for the absolute indication at a conjugata vera of $1\frac{1}{2}$ inches or 3.75 cm., and the relative indication extended from that point up to an undermined conjugata vera measurement, and included many other conditions besides pelvic contractions. Other things being favorable, a $2\frac{1}{2}$ inch or 6.25 cm. conjugata vera (Harris), 3 inch, 7.5 cm., conjugata vera (Lusk), called for section rather than craniotomy, but be warned against relying entirely upon pelvimetry in the relative indication.

In contracted pelves, he preferred version to forceps when both were practicable. He insisted upon pelvimetry, and briefly outlined the methods. He believed it was chiefly by this means we could determine the indications for the section.

A conjugata of 3 inches—7.5 cm.—was generally admitted to be the least through which a living child of normal proportions could pass, and as Lusk maintained, if other diameters were lessened or the contraction was not limited to the brim, it might require a conjugata vera of $3\frac{1}{2}$ inches—8 cm.—or more.

No hard and fast line could be given. Each case must be judged alone. The relative size of the head, its resistance, the past history, the uncoerced consent, the general condition and surroundings of the patient, etc., were all important factors in the relative indication.

The life of the child was not "purely impersonal and scientific," but eminently personal and practical, and he believed the mother should run a reasonable risk in its interest. The life saving of craniotomy could never be as great as that of Cæsarean section, for it started with a necessary mortality of 50%, or half the lives at stake. But aside from all argument and comparative statistics, the section was decidedly restricting craniotomy. All deprecate the repeated performance of

craniotomy on the same woman. He accepted Carl Braun's rules for the relative indication.

Craniotomy was safer for the mother than section, but piece-meal extraction was equally if not more dangerous—ex. 22, conjugata vera, 2½ inches—6.25 cm.—or less.

If conservative delivery per *vias naturales* had been attempted and failed, this was a strong point in favor of craniotomy and against the section under these increased dangers.

He strongly deprecated conservative tampering and then resorting to the section; many lives had been thus sacrificed. If we desired success we must make the section an elective operation, and not a procedure of dire necessity.

Dr. Miltenberger.—With regard to the paper of Dr. Neale's, confined as it is to the indications for the Cæsarean section, there is nothing which I would controvert.

Under the absolute or positive indications, as laid down, there can be no question.

The confusion and discrepancy of opinion have arisen from want of definiteness and clearness as to the relative indications.

If we take the statistics of craniotomy generally, including all cases, we get no positive resulting data to guide us.

Where the pelvis is contracted as to necessitate the piece-meal extraction of the fœtus, it is recognized undoubtedly as the most serious of obstetric operations, and more dangerous than Cæsarean section. Where, on the other hand, craniotomy alone is required, the operation is simple, and the danger to the mother, in proper hands, should not be greater than from the application of the forceps. In my individual experience on my own patients, I have been obliged to resort to craniotomy but twice in 50 years, and in these, as well as in those in consultation practice, the mothers have all recovered.

Now, it is just in the latter class that the doubt arises.

The smallest conjugata vera diameter through which a living child has been expelled is 3 inches, or as has been claimed, 3¾ inches, but with this we cannot expect to save the child through the natural passages.

But whether with this or a little more available space, we must recognize the prime and absolute importance, as the doctor states, of pelvimetry, and to the thorough practical study and application must we mainly look for increased certainty. Especially does this hold as to internal pelvimetry, the best instrument by far being the hand of the obstetrist.

Now, while it is true, the measure here of the conjugata vera by the finger may not be perfectly accurate, and we require also to learn the available space in the transverse diameter, yet with care it sufficiently approximates the truth for our purposes. But on the other hand, as the doctor has said, we cannot accurately determine the size of the child's head, its degree of ossification, etc. It is true, by bi-manual examination we can approximate the truth, but not exactly obtain it. I have known an accomplished accoucheur persist for a length of time in the use of forceps, before he recognized that he was dealing with a hydrocephalic head. Thus both the factors have elements of uncertainty.

It is just in this class of cases that the doubt and uncertainty arise.

When the practical obstetrist meets with a case of dystocia from this cause by internal measurement he satisfies himself as far as possible, he has three inches of available space in the conjugata vera, or even above this, without a full knowledge of the size of the fœtal head, he naturally applies the forceps or proceeds to turn, and not improperly, but if he fails, he has already violated the first fundamental law in Cæsareotomy—to resort at once to the knife, without any previous operative manipulation; if such manipulation has been at all prolonged, the choice is not between craniotomy and Cæsarean section, but between craniotomy and a Porro.

Fortunately, pelves contracted to this extent are rare in this country, particularly in the higher walks of life.

The operation of Cæsareotomy is in itself sufficiently simple, and the modern section is undoubtedly one of the greatest advances in modern obstetricy, while its success constitutes a brilliant epoch in our recent history. In the hands of those skilled in its technique, and taught and trained by experience, there is every reason to trust and believe that the modern Saenger will extend still further its successes, and that as an operator gains tact and knowledge with every case with which he deals, and as a part of the success must depend upon his absolute command of his patient and her surroundings, it is most likely the old picture will be reversed, and with our aseptic and antiseptic precautions hospitals will offer a smaller rate of mortality than private practice.

Finally, realizing as I do, the success of the modern Saenger, and the lessened mortality rate which has been achieved, yet we know that no abdominal section is entirely free from danger, and, as I said in these cases of relative indications they may be claimed to be almost, if not entirely void of peril with craniotomy.

I do not hesitate to declare that I should prefer, in my own wife, as the safer for her, craniotomy to Cæsarean section in such a case, and therefore, bound to extend to others, my patients, the golden rule, "to do unto others as I would they should do unto me."

I am, therefore, forced to the opinion that Cæsarean section will not completely supplant the old operation, and that there still remains a field, although markedly limited, for craniotomy on the living child.

Dr. J. Whitridge Williams.—I am sure that all of us are greatly indebted to Dr. Neale for the very clear manner in which he has set forth the indication for the operation, and I almost entirely agree with him.

The absolute indication I would place at 5, 5½ cm., or 3 inches, and the upper limit for the relative indication at 7½ cm., or 3 inches. Within these limits, unless the

child be abnormally small, there should be no question as to the use of forceps; and the question to be decided is whether craniotomy or Cæsarean section should be done.

Theoretically, I would choose the section in all cases that appeared favorable; but practically, I might waive my theory in the case of a primipara, who had not been examined previous to labor. For in that case it might appear very hard to submit a young woman to such a risk without any previous intimation of her danger.

But if I performed craniotomy under these circumstances, I would warn her that in becoming pregnant again she would take the responsibility of the child's life upon herself, and that I would refuse to perforate in subsequent pregnancies.

The mortality of the operation need not dismay us, for Munchmeyer has lately reported the latest statistics of Leopold, in which he reports 28 Saenger operations with the loss of three mothers and one child, and seven Porro operations, with no maternal deaths.

Dr. B. B. Browne.—I had a case recently upon which I did Cæsarean section. The woman was 27 years of age. She had had one child. Her labor was two years ago, when she had convulsions and a craniotomy was done. As a result of injury received at this time the vagina and uterus sloughed, and there was complete atresia of the vagina. This atresia was afterward opened up, and she became pregnant. The vagina was contracted by cicatricial bands, and an opening could be felt in the side of the cervix, but to the left of the opening was a cup-shaped cavity which might have been the old cervix.

She was not sure of the time of impregnation. She was swollen and her urine solidified with albumen upon heating. Labor pains began December 20, and continued for one or two days, but there was no dilatation. She came to the hospital December 22. She had severe uterine contractions that day and came for the purpose of having Cæsarean section done. But next day the pains had all gone. The night of January 1, the water broke, and severe pains began. The cicatricial bands about the cervix were cut, and Elliot's forceps were introduced. Both blades of Tarnier's forceps could not be gotten on. After several efforts I concluded that the child could not be delivered in that way.

In the morning the fœtal heart was distinct; in the afternoon it was feeble.

The section was made without difficulty. The placenta was attached in front. The child could not be resuscitated. The placenta was readily detached and the uterus was cleaned out and closed by the Saenger method.

The woman had grave kidney disease, and had little chance of recovery on that account.

In this case several things are to be considered.

1. The woman was perfectly willing for the operation.

2. Her life, from the condition of her kidneys was not insurable, and the child had a good chance of living.

3. She had much difficulty in the former craniotomy and barely escaped with her life.

Dr. Ashby.—I have had the good fortune to witness two Cæsarean sections. One, the case of Dr. J. G. Jay, of this city, several years ago, and the recent case reported by Dr. Browne. I was impressed with the case with which the operation can be done. Its mechanical execution is certainly much less difficult then is necessitated by many intra-abdominal operations.

Hæmorrhage is easily controlled, and the closure of the uterine wound is not a difficut undertaking.

In the case of Dr. Jay, the mother made a prompt recovery and the child perished simply because of the unavoidable delay which was experienced before an attempt of its removal was made. Its death had in my opinion, no relation to the operation but to causes which antedated the section. I am convinced in the case of Dr. Browne, the child could have been saved had no other method of delivery been attempted.

The section I think, bore no relation to its death. In this case the operation was skillfully done, and I am inclined to believe that the mother's death should be assigned chiefly to her kidney complications. She was a bad subject but bore the section well.

My opinion of the Cæsarean section is altogether favorable. It has come to stay, and with an improved technique, and larger experience will be approached with less hesitation.

The operation of the future will be approached without delay, and before other methods of delivery have been employed.

The important indications for the operation rest on careful pelvic measurements and determination in advance of any obstetric interference of the impossibility of delivery by version or forceps. If this is done the section will be approached under its most favorable aspects and its results will be far more satisfactory.

I agree with Dr. Miltenberger in that personally. I would prefer craniotomy, if the patient were a member of my own family, but upon scientific grounds, I would not hesitate to operate did my patient and her friends elect this procedure, having satisfied my own mind that a living child could not be born in any other way.

I think it unfortunate that the physician in charge of these cases should not have the moral support of the public and profession in the selection of the section in advance of attempts at other methods of delivery. Out of deference to a sentiment, he often feels forced to use the forceps and version where his own judgment was in favor of the section.

Valuable time is thus lost, and the lives of both mother and child endangered, if not sacrificed.

Dr. Neale.—As no points were raised against the paper I have nothing to say in its defense.

I did examine Dr. Browne's case, and told him in my opinion it was no case for the section.

The chief obstruction was in the soft parts, that the pelvis was very slight, if any. I thought it possible to deliver the child alive p. v. n. but was sure it could

be readily extracted after craniotomy. Owing to the kidney complication, the mother was in a most unfavorable condition for the section, and for that matter the child also, therefore I advised against this operation.

However, after once beginning a conservative delivery p. v. n., which was persisted in no longer then 30 minutes, I certainly never should have resorted the section in that case, with both child and mother in the then most unfavorable condition, but would have delivered at once by craniotomy.

I totally and emphatically differ from Dr. Ashly that any conscientions obstetrician should ever be forced to craniotomy by the moral suasion of the patient or her friends. Such teaching would be extremely pernicious.

The sentimental question of what one should do if the patient were his wife, etc., is a matter of individual conscience and not open to scientific discussion before a medical society.

I again request the fellows not to let this matter rest where we have it to-night. I wish to emphasize the fact that I have purposely avoided any reference to the religious aspect of this question, as I do not believe this point is open for scientific disscussion before a medical society.

WILLIAM T. GARDNER.
Secretary.

SOCIETY NEWS.

AMERICAN MEDICAL ASSOCIATION.

The forty-second annual session will be held in Washington, D. C., on Tuesday, Wednesday, Thursday and Friday, May 5, 6, 7 and 8, commencing on Tuesday, at 11 A. M.

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by representation in their respective State Societies, and from the Medical Department of the Army and Navy, and the Marine-Hospital Service of the United States.

"Each State, County and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and for every additional fraction of more than half that number: Provided, however, that the number of delegates for any particular state, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association."

MEMBERS BY APPLICATION.

Members by Application shall consist of such Members of the State, County, and District Medical Societies entitled to representation in this Association as shall make application in writing to the Treasurer, and accompany said application with a certificate of good standing, signed by the President and Secretary of the Society of which they are members, and the amount of the annual membership fee, $5. They shall have their names upon the roll, and have all the rights and privileges accorded to permanent members, and shall retain their membership upon the same terms.

The following resolution was adopted at the session of 1888:

That in future each delegate or permanent member shall, when he registers, also record the name of the Section, if any, that he will attend, and in which he will cast his vote for Section officers:

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, at once, lists of their delegates.

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries are, by special resolution, requested to send him, annually, a corrected list of the membership of their respective societies.

AMENDMENTS TO THE BY-LAWS.

Offered by Dr. A. L. Gihon, United States Navy:

That the first day of the meeting of this Association shall be the first Wednesday of May or June respectively, instead of Tuesday.

By Dr. X. C. Scott, Ohio:

That the Committee on State Medicine be abolished, inasmuch as the Section on State Medicine occupies the entire ground.

By Dr. E. A. Wood, Pennsylvania:

That the word Physiology be stricken from Section 1, and a new Section, entitled the Section on Dietetics and Physiology, be formed.

By Dr. J. C. Culbertson, Ohio:

That the State and Geographical District Societies in affiliation at this time with this Association, having a membership of 100 or more, shall be recognized as branches of the American Medical Association.

That all members of said Societies enjoy all the rights and privileges now accorded to delegates.

By Dr. Wm. H. Daly, Pennsylvania:

That in future the permanent members have all the rights of delegates.

ADDRESSES.

On General Medicine, by Dr. E. L. Shurly, Detroit, Mich.

On General Surgery, by Dr. Jos. M. Mathews, Louisville, Ky.

On State Medicine, by Dr. W. L. Schenck, Topeka, Kan.

Committee on Arrangements: Dr. D. C. Patterson, Chairman, 919 I Street, N. W., Washington, D. C.

WILLIAM B. ATKINSON, M.D.
Permanent Secretary.

ITCHING OF JAUNDICE.—For the itching of jaundice, Prof. DaCosta advised sodii bromidum with antipyrin internally, with the following ointment externally:

℞ Menthol, - - - - gr. xx.
Alcohol, - - - - - ℥ij.
M. Sig.: For local use.

SELECTIONS.

THE SOCIAL EVIL BILL.

The following bill has been introduced and is now pending before the Missouri Legislature. It has been read twice, and is now awaiting the action of the Committee on Municipal Corporations:

Section 1 provides that the boards of police commissioners in all cities of the State having the same, are required to make a complete list of all houses of ill-fame, and of all fallen women, revising this list as occasion may demand, and furnishing it to the boards of health. The list shall be a minute one, giving the names, aliases, ages and former occupation of the women, together with such particulars as may be of statistical and sanitary interest, the record to be kept in the office of the Clerk of the Board of Health, and to be open to inspection to the members of the boards and the Municipal Assembly only.

Section 2 provides that each keeper of a house of ill-fame shall be required to furnish complete information to the board and its agents of the particulars set forth in section 1, to give notice of any change that may take place in ownership or with respect to the inmates. Any person failing to comply with such requirements shall be guilty of a misdemeanor.

Section 3 provides that the police boards shall set apart a district consisting of not more than one-twentieth nor less than one-fortieth of the total area of the city, and as far as possible outside the residence section, wherein fallen women may live. This district shall be divided into sub-districts, and for each subdistrict shall be appoiuted a regular physician whose duty it shall be to visit at least once a week each of the houses and women appearing on the list furnished by the board for his sole use and inspection. Such physician shall inquire into the condition of the women, and make such orders as are necessary. He may cause their removal to the hospital or hold them under bond of from $200 to $500. He shall make a weekly report to the Board of Health concerning each house and the condition of the inmates, and the keeper of each house shall pay to him $1 per week for each such inmate, this money to be delivered to the Clerk of the Board of Health, subject to the order of the board. Any person violating the order of such physician, or in any way obstructing him in his duty, shall be deemed guilty of a misdemeanor and fined not less than $20—provided that any person may within three days of the issue of the order appeal from it in writing to the Board of Health, which shall thereupon grant a final hearing.

Section 4 provides that the Board of Police Commissioners, upon the request of the Board of Health, shall have the power to suppress any house of ill-fame within any locality they may from time to time designate, or the keeper of which disobeys any lawful order. A fine of not less than $20, nor more than $500, may be inflicted upon any person violating such conditions by persisting in a course contrary to the law.

Section 5 provides that each physician shall, in addition to the examining fee, collect from the women such sums as may be jointly prescribed by the boards of health and police commissioners. Such fees shall be known as hospital dues, and shall be paid to the Clerk of the Board of Health, who shall hold the same subject to the order of the board.

Section 6 provides that the boards of health and police commissioners, as well as their agents and physicians, shall use all proper means to reclaim any of the women, and shall, therefore, make diligent inquiries into the causes leading to their downfall; that the agents shall immediately report to the boards any suspicious circumstances, and assist any woman who desires to reform.

Section 7 provides that the boards shall, if necessary for the purpose of carrying out the provisions of the foregoing section, establish a refuge or reformatory wherein fallen women who desire to lead a virtuous life, but are unable to obtain remunerative employment or are physically unfit to perform work, may be sheltered until placed in some position where they can maintain themselves honorably. It may be required of such of these women as are physically able to engage in such work as is necessary to carry on such an institution, and to make articles for sale. Such an institution shall in no wise be a penal one, and may be supported by contributions from charitable persons or organizations, or the boards may levy at their discretion a sum not exceeding $10 per month on the keeper of each house of ill-fame.

Section 8 provides that the physicians and other employees appointed by the board shall receive such salaries as the board may fix.

Section 9 empowers the Board of Health to make such regulations as are necessary to the enforcement of the act. A fine not exceeding $500 may be inflicted upon anyone violating such regulations.

Section 10 provides that all moneys coming into the hands of the Board of Health by virtue of this act shall be paid into the city treasury at least once a week, the clerk of the board to take triplicate receipts therefor—one to be deposited with the Comptroller, one with the Auditor, and one to be retained by the board.

Section 11 prohibits fallen women from standing at the open door or window of a house, and from plying their vocation in any public place. The fine for each offence is placed at not less than $5, nor more than $50.

BRADYCARDIA, OR SLOW ACTION OF THE HEART.

The cases hitherto recorded of "slow heart" and the inferences derived from them are not altogether satisfactory, as many errors have arisen owing to the pulse having been only taken at the wrist and not compared with the apex beat. Dr. Riegel has made observations on 1,047 patients whose hearts beat less than sixty times

per minute. Such a condition he terms bradycardia. He divides his cases into two large groups:

1. Physiological bradycardia. By this Riegel understands a slowing of the heart's action, caused by, or in connection with, some physiological condition. Under this head would come the "slow heart" occurring in puerperal states, also that which is found in cases of starvation, and finally, the bradycardia which is sometimes observed as a constitutional peculiarity. Riegel here remarks that many of the cases of this kind which have been reported are greatly open to question, as some of them were obviously due to some pathological cause.

2. Pathological bradycardia. There are several varieties under this head: *a*. The slowing of the pulse noticed in convalescence from a feeble affection. More than a quarter of the whole number of cases were of this kind. They were most commonly observed after recovery from crupous pneumonia; then, in order of frequency, after typhoid, erysipelas, and acute rheumatism. Traube attributed this phenomenon to a state of general exhaustion. *b*. Bradycardia in diseases of the digestive tract. In this division were 379 cases. It was most frequently noticed in affections of the stomach (ulcer, carcinoma, and dilatation). Such a result might have been inferred from physiological experiments; for in animals an increase of arterial tension with diminution in frequency of the pulse takes place when the stomach is submitted to electric, mechanical, or thermic excitation, and is caused by a reflex action of the vagus. The slow pulse of icterus probably depends on the paralyzing action on the cardiac ganglia by the bile acids in the blood. When occurring in cases of peritonitis, the bradycardia is probably of the nature of those cases described in the fifth division.

3. Bradycardia in diseases of the respiratory organs. In this class were 87 cases. Some of them were during convalescence from pleurisy; others after hæmoptysis, or after the withdrawal of a large pleural exudation.

4. Bradycardia in cases of disorder of the circulatory organs (47 cases). This phenomenon appeared in fatty degeneration of the heart and when the coronary arteries were ossified, but it was never found as a constant symptom of any one disease of the heart; it more often occurred when the heart was flabby and insufficiently nourished.

5. Slow heart in diseases of the urinary organs (64 cases). Acute nephritis was the most common disease in which it was found; the slowing of the pulse was always accompanied by increase of arterial tension, and was often the earliest sign of the retention in the blood of the urinary constituents, thus denoting the commencement of uræmia.

6. Bradycardia as a result of poisoning. Riegel noticed it in three cases of lead poisoning and in five cases of chronic alcoholism.

7. A pulse under 60 per minute was noticed in 27 cases of anæmia and chlorosis, in one case of extreme anæmia after lead-poisoning, and in three cases of diabetes.

8. Bradycardia in diseases of the nervous system (93 cases). In many of these cases it was thought to be due to reflex vagus action. In some instances of disease of the central nervous system it was probably caused by direct vagus action; in others Riegel ascribed the symptom to disturbances of circulation and blood-pressure in the brain; and in the remaining number of cases no definite action could be distinguished.

9. Bradycardia in other diseases. Under this head were 17 cases of extreme fatigue and exhaustion, one case of sunstroke, 13 cases of skin diseases, and 17 of painful affections of the muscles.—*Lancet.*

THERAPEUTICS OF GASTRIC DYSPEPSIA.

M. Georges contributes (*Revue Medicale de l'Est*, September 1, 1890) a paper on this subject, based on a number of experiments he has made on the relative digestive powers of natural and artificial gastric juices. Cubes of hard-boiled white of egg were placed for a certain length of time in an artificial gastric juice containing HCl and pepsin in varying dilution. He finds:

1. That to effect a speedy and satisfactory digestion of hard-boiled egg, or of roasted and raw meat, it is necessary to use a gastric juice containing a large quantity of HCl and a minimum quantity of pepsin.

2 The hydrochloric acid ought to be employed sufficiently dilute; a .4% dilution appears to be preferable to one either weaker or stronger, such as .1% to .2% or 1%.

3. The best proportions of HCl (4%) and pepsin are about five cubic centimeters of acid to two centigrammes of pepsin.

4. It is necessary to employ the artificial juice thus made in sufficient quantity to obtain the best result. Thus, if the above proportions of acid and pepsin be taken as the unit, it may be said that the digestive power of the juice increases with the quantity employed, and that the increase is in the proportion of 12 to 8. This only applies, however, within certain limits. A combination of 40 cubic centimeters of a .4% solution of HCl with 8 to 10 centigrammes of pepsin gives the best results of all.

His observations on the digestive capabilities of natural gastric juice were on 142 specimens taken from 69 patients. In 8 cases of "chlorotic anæmia" the contents of the stomach were found on 18 occasions to have no digestive power at all; on two occasions they possessed a slight power; and on one occasion digestive power was normal. In each of these cases the addition of pepsin failed to modify the digestive action; in one instance, indeed, it appeared to delay it. The addition of HCl, on the contrary, had a very marked effect in 12 cases, but was without result in 8 cases. Of all the degrees of dilution employed, .4 to .6% of HCl gave the best results. In 9 cases of gastric ulcer the digestive power of the gastric juice was found to be excellent on 19 occasions and absent altogether on 10. In these 10 instances pepsin was found to be hurtful in its action

on 3 occasions, while HCl (4%) restored the digestive power on 6 occasions. Analogous results were obtained in 92 specimens of gastric juice obtained from 52 different cases, including such affections as tabes, catarrhal jaundice, acute and chronic gastritis. In 87 of these 92 the gastric juice was without digestive power. The addition of HCl (.4%) proved useful in 46 cases, while pepsin entirely failed, even impeding the digestive process, on 12 occasions. The result, therefore, of the observations on 142 samples of gastric juice was that 115 were found without digestive power. In all these cases pepsin had no action, appearing sometimes to be even hurtful (16 times). The conclusion he draws from these data seems, then, justified—namely, that pepsin is useless where the dyspepsia is due to some primary or secondary disturbance in the gastric secretion, while hydrochloric acid can be used with advantage in such cases. A further series of observations on the digestive power possessed by various medicinal preparations containing as their basis hydrochloric acid, pepsin, pancreatin, or papain, showed that they were without action in all cases; they did not facilitate digestion either in the case of artificial or of natural gastric juice.—*Brit. Med. Jour.*

THE TREATMENT OF WHOOPING-COUGH BY VACCINATION.

Dr. Cachazo noted in a case of whooping-cough under his care that almost immediately after vaccination there was a striking relief in the whooping-cough, and this observation led him to test the action of the vaccine virus in 5 extremely severe cases of whooping-cough, and his results are published in the *Wiener Medicinische Blatter*, Oct. 16, 1890. Of these 5 cases 4 were of such extreme severity as to threaten life. The convulsive attacks were almost continuous, and were accompained by threatening suffocation from vomiting and bleeding from the mouth and nose. Dr. Cachazo vaccinated each of these cases, and, as soon as the febrile symptoms of the vaccination commenced, the situation was entirely altered. The coughing almost entirely ceased, and was then simply of a catarrhal character, and disappeared entirely after eight or ten days. During the existence of the vaccine disease the patients were treated with inhalations of 1% carbolic acid solution, a procedure which, he thinks, is warranted, on account of the observation of Theile, that the microbes in this disease do not exist deep in the mucous membrane, but are superficially located in the mucus, so that the antiseptic readily reaches them and causes their death.

As regards the mode of action of the vaccine microbe, the author has very little definite to suggest. He calls attention to the two possibilities that either the febrile symptoms in vaccination are due to the distribution through the body of the vaccine microbes, or that the action of these microbes terminates in the development of certain products which themselves produce the characteristic effects of vaccination. But as to how the whooping-cough is affected he has nothing to suggest. —*Ther. Gazette.*

THE COLLODION DRESSING IN MINOR SURGERY.

If simplicity, ease of application, and convience in use are true measures of the value of a surgical dressing, the one described here should find favor. My own regard for it increases with each year that I use it.

It is applicable to all ordinary clean wounds—to all wounds where no pus-forming elements have been introduced by accident, or by the surgeon. This includes incisions for the enucleation of small tumors, caseous glands, etc.; incised wounds of all kinds; contused wounds that have been thoroughly cleansed; the punctured wound of a compound fracture, and many others that will readily suggest themselves. Sutures destined to be absorbed do not interfere with it, nor do silken ones when properly sterilized. It is of special advantage for the application of small dressings to the head and face.

The materials required are absorbent cotton and flexible collodion; and the method of use is as follows;

The wound having been thoroughly cleaned and asepticized, the surrounding skin for a space of from one to two inches is treated in the same manner. If the part is a hairy one, the same area must be closely cropped, or better shaved. Whatever in the way of sutures may be necessary, is now applied; and, after another cleansing, iodoform or iodol is dredged fairly thickly over the wound.

A very thin layer or "fluff" of absorbent cotton, simple or borated or iodoformed—as you choose, is now applied. It should stretch about half-way from the wound to the border of the surface which has been prepared for the dressing. With a camel's-hair brush the flexible collodion is put on the cotton, which is brushed down, as it were, upon the wound. The thin cotton layer melts down; in a moment the collodion has set; it adheres firmly to the surface of the wound and to the skin; and your wound is covered.

Layer after layer of thinly spread absorbent cotton is now added—each one overlapping its predecessor slightly, and taking firm hold of the skin. Two to six or more layers, as mey be deemed mecessary to protect the wound, mey be employed.

The ether in the collodion causes some smarting; but otherwise the dressing is painless.

When the last layer is applied, you have an absolutely perfect dressing. Your wound is hermetically sealed. The dressing is permanent and may be left for a week. But two other and greater advantages remain:

First, your dressing is self-retaining. This is a small thing surgically—but an important one from the patient's point of view. Ask him to weigh the comparative merits of a week or two with a bandaged and

plastered cephalic extremity, perhaps with confinement to the house added thereto by the inability either to wear his hat with decorum or meet the inquiring gaze of his fellows; ask him to compare that with a light dressing confined to the wound, which will permit him to pursue his usual course in life without molestation. There will be no hesitation about his answer. And its value will be more apparent still when the dressing is used on the ears, chin, or parts difficult to bandage to the patient's contentment. Nor are we liable to be annoyed by the slipping or loosening or dirtying of bandages.

Finally the dressing is æsthetic. The collodionized cotton is semi-transparent, and is invisible at a short distance if only a few layers are used; if more are applied if forms a grayish-white coating which is not conspicuous. The small uniform protuberance of almost skin color will often pass unnoticed.

A further improvement, which would render the dressing almost invisible, would be to use light pink cotton, if such is procurable—or to incorporate a small quantity of some red dye like cochineal with the collodion.

If it is desirable at any time to remove the dressing, or to take out sutures, the edge of the collodion-cotton film is lifted all around with the dressing forceps, and perhaps with the aid of a little hot water, the entire mass comes off in one piece. As the wound heals fewer layers of cotton are required.

I really believe that I have often received more appreciation from patients for this procedure than for anything else that I have done for them.—Gottheil, *Int. Jour. Surgery.*

ACTION OF GALVANISM ON THE INCUBATING HEN'S EGG.

Dr. Martin, of Chicago, recently made a series of experiments by the employment of incubating hen's eggs, to determine the relative fœticidal value of the faradic and galvanic current. He was aided in his experimentation by an experienced chicken breeder.

The eggs were all fresh, and from the same source as nearly as possible. They were all marked and divided into four groups and placed in the incubator.

At the end of one week two sets were acted upon by electricity, one by a very strong faradic current, as strong as could be borne by a person without ether, for five minutes. The electrodes used were four sq. cm. in area.

At the end of two weeks the other two sets were acted upon, one by a much stronger faradic current, and the other by the galvanic, going up to fifty ma., also without shock, for five minutes.

At the end of the hatching period about 30% of the first lot, acted upon by the faradic current, hatched, but not one of those treated by the galvanic current hatched.

Of the second portion about 60% of those treated by faradism remained undestroyed, while not one of the chicks treated by galvanism picked its shell.

The doctor very naturally reasons that this is conclusive, at least as far as chicks are concerned, proving that even strong faradism is inert, while camparatively mild galvanic currents are a sure fœticide.

This is a line of investigation which I have long thought and desired to pursue, and the results obtained by Dr. Martin are just what I should have expected, from the known germicidal power of the galvanic current.

Dr. Martin says: "If this same ratio of value should exist in the power of electricity to destroy the human ovum we have an additional scientific advantage in galvanism, in being able to regulate our dose."

There is no doubt that a fœtus of two or three months' growth has been, and can be deprived of life as safely and effectively as were these chicks at the end of two weeks' incubation.

In the earlier period of extra-uterine pregnancy the application of galvanism is indicated, but after a short time rupture of the sack may take place, and an operation be preferable to galvanism.—*Med. World.*

THE MANAGEMENT OF LINGERING LABOR.

A discussion on the modern methods of managing lingering labor, before the British Medical Association, was opened by Dr. W. S. Playfair. After referring to the dread of meddlesome midwifery, on the part of leading obstetrician, of thirty five years ago, and the readiness with which these men resorted to bleeding and debilitating medication, the speaker proceeded to review the methods of the present day. The mere wear and tear of a labor lasting more than twenty-four hours seemed to him to be a very serious thing, and he did not think it right that we should sit with hands folded waiting until serious symptoms should arise before taking action. He first considered the frequently met with difficulty arising from non-dilatation caused by inertia, or by irregular and cramp-like pains, premature rupture of the membranes, and over-distension of the uterus from excessive liquor amnii. For the relief of rigid os uteri prolonging the first stage of labor, Dr. Playfair advocated most strongly the internal administration of chloral hydrate. Under the use of this agent the pains become longer, steadier and more efficient. The patient falls into a somnolent condition, dozing quietly between the pains, which are not lessened or annulled as when chloroform is used. The wild state of excitement is calmed and soothed. Ffteen grains should be given at the first dose, repeated in twenty minutes. Possibly a third dose may be required, but never more.

As an oxytocic Dr. Playfair recommended quinine. In a labor with feeble, ineffective pains, one or two doses of quinine of fifteen grains each will have a beneficial effect in altering the character of the pains.

This drug does not possess any of the dangerous properties of ergot.

Speaking of mechanical means for producing dilatation of the os, the speaker referred to a suggestion first made by Trenholm, of Montreal, that the finger be swept around the inner surface of the os, separating it from the membranes. Why it is so Dr. Playfair did not know, but he was satisfied that this simple procedure did excite marked dilatation of the os.

When the head is pushed down low in the pelvis, the os being soft and relaxed, and the membrane ruptured, it was his belief that gentle manual dilatation, pushing, as it were, the os over the head, is frequently extremely useful. Pushing up the swollen anterior lip when impacted between the head and the pubes is not only legitimate, but essential to save injury to the os.

In prolonged second stage, Dr. Playfair referred to ergot and condemns its use at this time in the strongest terms. The only oxytocic he would recommend at this period of labor was manual pressure applied over the uterus to increase the pains when they are feeble, or to take place when they are absent. The best way of using it is for the practitioner to stand by the side of the patient, and to spread his left hand over the fundus. When the pain comes on strong downward pressure is made in the direction of the axis of the brim. If the finger of the right hand be placed simultaneously on the head, *per vaginam*, it will be felt to be pushed down in a very marked way. One may often push a head through the brim where it has been delayed for hours and on to the perineum in two or three pains. One may often avoid the use of forceps.

As to the latter means, the speaker expressed the fear that there was a tendency to use the instruments too frequently. In the period from 1815 to 1821, 21,867 cases of labor were treated at the Rotunda Hospital Dublin, without the forceps being used once. The present practice in this institution is such that forceps are now used on an average of 1 in 16.5 cases. The use of the forceps when the head is high up is a serious operation always and should not be undertaken lightly.

Unnecessary delay, when the head is in the pelvic cavity, is not only useless, but dangerous. By timely interference we lessen the risk to both mother and child. It is quite impossible, however, to lay down any precise rule as to when the forceps should be used in lingering labor. Every case must be treated on its merits,after a carefu examination of the effect of the pains.—*Brit. Med. Jour.*

CHRONIC SO-CALLED RHEUMATIC AFFECTIONS.

When the term chronic rheumatism is used, it should be limited to those cases in which the joints are painful but not swollen, or in which there is a neuralgia or an arthralgia associated with myalgia or apart from it; or in which the fasciæ are affected, or in which there is a general neuralgic condition supervening on an acute attack of rheumatism. This is what we prefer to call "chronic rheumatism." But in speaking of the symptom arthritis, I will make reference to those symptoms which are sometimes put down as common to both. Let us imagine two patients sitting side by side, one with chronic rheumatism and the other with rheumatoid arthritis. Now, what do we see? In the rheumatoid arthritis case the first thing that strikes us is most probably the pallor of the patient, as compared with the chronic rheumatic. We look a little closer and the next thing we perceive will present in this feature little or nothing; whereas, on the other hand, the rheumatoid arthritis patient will be more or less crippled. There will be distinct muscular atrophy in the rheumatoid arthritis case, and the complexion will present the pallor mentioned above, showing on closer inspection yellowish tinges on the face, neck and perhaps elsewhere. If we ask both patients if they ever had rheumatic fever, they will probably say no; but further inquiry will elicit the probable fact that the family history of the patient with rheumatism will be a good one, while the rheumatoid arthritis patient, in most cases, gives or shows a strumous taint. It is upon the basis of strumous taint that we feel we must look for further assistance to guide us in the treatment of this terrible crippling malady. It is nearly always present more or less. We are aware that this strumous history has not been particularly referred to in other descriptions of the disease. Its being the almost invarible accompaniment has induced us to bring the matter forward. In fact, to look upon struma and rheumatoid arthritis as cause and effect has seemed to us the one plain characteristic in our investigations.—*Lancet.*

A Remarkable Continuance of Pregnancy in Spite of Intra-Uterine Manipulation.—Vickery (*Boston Med. and Surg. Jour.*, p. 413, 1890) reports the case of a multipara, nursing a child six or eight weeks old, who observed suppression of menstruation. The patient took tansy tea and turpentine without result. An English catheter was then obtained, and daily efforts made for about three weeks to pass it into the womb to interrupt pregnancy. The patient thought that she had succeeded because a constant uterine hæmorrhage resulted. A physician was called, and pregnancy not being suspected, the patient was given ergotin, in all 72 grains, and the vagina was tamponed. As it was supposed that the placenta had been retained from the previous labor, her physician curetted the uterus, and then applied tincture of iodine to the endometrium. Hæmorrhage continuing, a gallon of hot water was injected three times daily for four days. Dr. Vickery, when called in consultation, found the fundus of the uterus near the umbilicus, and pregnancy undoubtedly existing. Labor was then induced, and a five or six months' fœtus was expelled. The woman escaped septic infection or any permanent injury.—*Am. Jour. Med. Science.*

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service.

FOR THE TWO WEEKS ENDED, FEBRUARY 7, 1891.

Sawtelle, H. W., Surgeon. Detailed as member of Board, Revenue Marine Service. Jan. 26, 1891.

Austin, H. W., Surgeon. Detailed as Chairman of Board for physical examination, of officers of Revenue Marine Service. Jan. 28 and Feb. 6, 1891.

Pettus, W. H., P. A. Surgeon. Detailed as Medical Inspector of Immigrants, Port of Boston, Mass., Jan. 29, 1891.

Magruder, G. M., P. A. Surgeon. Detailed as Recorder of Boards for physical examination of Officers of Revenue Marine Service. Jan. 28 and Feb. 6, 1891.

Kinyoun, J. J., P. A. Surgeon. Detailed for special duty at Berlin, Germany, Jan. 26, 1891.

Groenevelt, J. F., Asst. Surgeon. To proceed to Cape Charles Quarantine for temporary duty. Feb. 7, 1891.

A Victory for the Wagner Vestibule.—The Wagner Palace Car Company, operating sleeping cars over the Big Four Route, has gained a signal victory in its controversy with the Pullman Company. By the decision just rendered by Judges Gresham and Blodgett, in the United States Circuit Court at Chicago, the motion made by the Pullman Company to enjoin the Wagner Company from the use of the "Vestibule" is denied, and the Wagner Company is sustained on every point it has made in the contest. The decision practically disposes of the litigation, and leaves the Wagner Company a clear field in which to demonstrate the superiority of its perfected Vestibule, which is now in use on all express trains of the Big Four Route, making the trains practically solid from end to end, an advantage which will be readily appreciated by the traveling public.

St. Louis and Salt Lake City.—Those who travel much will be pleased to know that a through sleeping car line has just been established between St. Louis, Denver, Cheyenne, Ogden and Salt Lake City, via the Missouri Pacific and Union Pacific Railways. This is the only through sleeping car line between the above points, and makes the entire trip in about 67 hours, saving several hours over any other line. Train leaves St. Louis 8:20 P. M. daily.

Paralysis Agitans.—Prof. DaCosta recommends the use of hydrobromate of hyoscine in doses of ½ gr. for the tremor of paralysis agitans.

USEFUL FORMULÆ.

The following are taken from the *Medical Bulletin*, which obtains them from the advanced sheets of vol. ii, of Shoemaker's "Practical Treatise on Therapeutics," now in press:

Ox-Gall.—The following prescriptions containing ox gall, are recommended:

℞ Fellis bovis purificati,
Magnesii carbonatis, - - aa c.
Ol. menth. pip., - - - ♏j.
M. et ft. capsulæ No. xx.
Sig.: A pill three or four times a day, after meals. Use in dyspepsia and constipation.

℞ Fellis bovis purificati, - - ʒj.
Extracti nucis vomicæ, - - - gr.j.
Aloini, - - - - gr.j.
Ol. cinnamomi, - - - - ♏j.
M. et ft. pil. No. xx.
Sig.: Two pills between meals. Serviceable in torpor of the liver and in dyspepsia.

Conium.—Conium may be prescribed in form of ointment as follows:

℞ Extracti conii alc., - - - ʒj.
Cocainæ hydrochloratis, - - gr.v.
Atropinæ sulphatis, - - - gr.j.
Veratrinæ, - - - - gr.xx.
Ungt. aquæ rosæ, - - - - ℥j.
M. For neuralgia, chronic rheumatism, gout, and synovitis.

℞ Extracti conii alc., - - - - ʒj.
Mentholi, - - - - - gr.v.
Extracti belladonnæ alc., - - gr.x.
Ungt. zinci oxidi,
Lanolin., - - - - - aa ʒss.
M. For painful cancer, scrofulous glands, herpes zoster, and enlarged mammary glands.

Convallaria.—Convallaria is of utility, likewise, in the irregularity of the heart dependent upon acute pneumonia, bronchitis, or emphysema, but is ineffective in fatty degeneration of the heart.

℞ Extr. convallariæ flor. fld., - - fʒij.
Syrup. aurantii, - - q. s., ad f℥ij.
M. Sig.: A teaspoonful to a tablespoonful three times a day. Useful in mitral insufficiency and functional heart disease.

℞ Potassii bitartratis, - - - f℥ss.
Extr. convallariæ flor. fld., - - fʒjss.
Syr. simplicis, - - q. s., ad f℥iv.
M. Sig.: From one-half to a tablespoonful, in water, three or four times a day. Valuable in general dropsy from heart or kidney disease.

ORIGINAL ARTICLES.

HYDROCEPHALUS—WITH REPORT OF A CASE.

BY H. H. VINKE, M.D., ST. CHARLES, MO.

Read before the St. Charles County Medical Society, at St. Charles, Mo., Feb. 17, 1891.

GENTLEMEN: I take the liberty of presenting to you a case, the history of which may prove of some interest.

This little colored boy, who is now over 6 years old, and attending school, was treated by Dr. Bruere and myself about six years ago for hydrocephalus. You can still see an enlargement upon the vault of the skull, parts of the frontal and parietal bones having formed an eminence, now completely ossified. When he was brought to us there was a distinct bulging through the gaping sagittal and coronal sutures, separating the parietal and frontal bones. The mother stated that this swelling had made its appearance four months after birth, and had become constantly larger. At the time when we first saw this little fellow the symptoms had become so urgent as to require immediate interference. He had a number of convulsions, had uncontrollable crying-spells, vomited a good deal, etc.; in fact, presented all the symptoms of compression of the brain, which usually accompany this dreadful affection.

We decided upon paracentesis. The fluid withdrawn by the aspirator was of a sanguino-serous character, as much as two or three ounces being withdrawn at a time. Aspiration was resorted to three or four different times, but as the fluid re-accumulated so rapidly with a re-establishment of all the distressing symptoms, we at last decided upon making an incision into the tumor, which was done under antiseptic precautions. There was quite a flow of blood at first, but the fluid gradually assumed a lighter hue. A pad of antiseptic gauze was now placed over the wound and held in place by means of a bandage. Serous fluid continued to flow for several days, after which the wound healed. There was never a recurrence of the brain-symptoms.

If you will kindly bear with me for a few moments I will conclude the history of this case with a few remarks on the subject of hydrocephalus in general. For many of the following notes I have drawn upon an admirable article on this subject by Frederick Treves, in the "International Encyclopædia of Surgery."

Two forms of this disease are generally recognized by the different authors, as the internal and the external. In the internal form (*hydrops ventriculorum*), which is usually congenital, but at times appears shortly after birth, an abnormal accumulation of fluid takes place within the ventricles of the brain; the external form (*hydrops meningeus diffusus* and *hydrops meningeus limitatus*) is characterized by an abnormal secretion of fluid in the arachnoid sack. This latter form is usually, however, a complication of the internal one, many doubting whether it ever occurs independently.[1]

This disease can readily be distinguished by an enlargement of the head, wasting of the muscles and soft parts, and deterioration of the general health. Then, too, symptoms of irritation, such as intense restlessness and agitation, convulsions, spasmodic contraction of certain muscles, etc., are always more or less pronounced.

The prognosis is exceedingly bad in these cases; in fact, Dr. Wyeth, in his work on surgery, dismisses the subject of treatment with the statement that "cure is impossible." Dr. Blackader asserts that "in a few exceptional cases a cure seems to have been effected, either naturally or through remedial agents."[2] Bardeleben, too, claims that in a few cases spontaneous cure, and in rare cases recovery after medical or surgical treatment has taken place.[3]

He states that in these rare cases which recover spontaneously, there is a reabsorption of the fluid and thickening of the bones of the skull. All agree that the prognosis is exceedingly grave, and Dr. Holmes[4] has never seen a case terminate in recovery.

As to treatment, little need be said about the general treatment, for beyond the relieving of the symptoms of irritation by means of narcotics and sedatives, it has been found of little or no benefit. Local treatment consists in pressure and paracentesis.

Pressure is made with a view of arresting the accumulation of fluid, but has proved of little avail; paracentesis has in a few cases resulted in a cure.

West has collected 56 cases in which paracentesis was resorted to, and which resulted in 4 cures.[5]

In our case the fluid re-accumulated so rapidly and so often that we decided upon making a free incision, which, as you see, resulted in recovery. As has already been stated, in the internal form of hydrocephalus (*hydrops ventriculorum*) we find an abnormal accumulation of fluid in the ventricles of the brain, and with the increase of this fluid there is a proportionate amount of disintegration and destruction of brain-substance, the result of direct and continuous pressure. Inasmuch as this boy is physically well developed, has suffered no interference with the special senses, and remains in possession of all mental faculties, this case would seem to demonstrate the possibility of external hydrocephalus (*hydrops meningeus*) independent of internal hydrocephalus. Then, too, it would show that these forms of external hydrocephalus are amenable to treatment.

[1]International Encycloæpdia of Surgery.

[2]Reference Handbook of the Medical Sciences.

[3]Bardeleben, Lehrbuch der Chirurgie und Operationskunde.

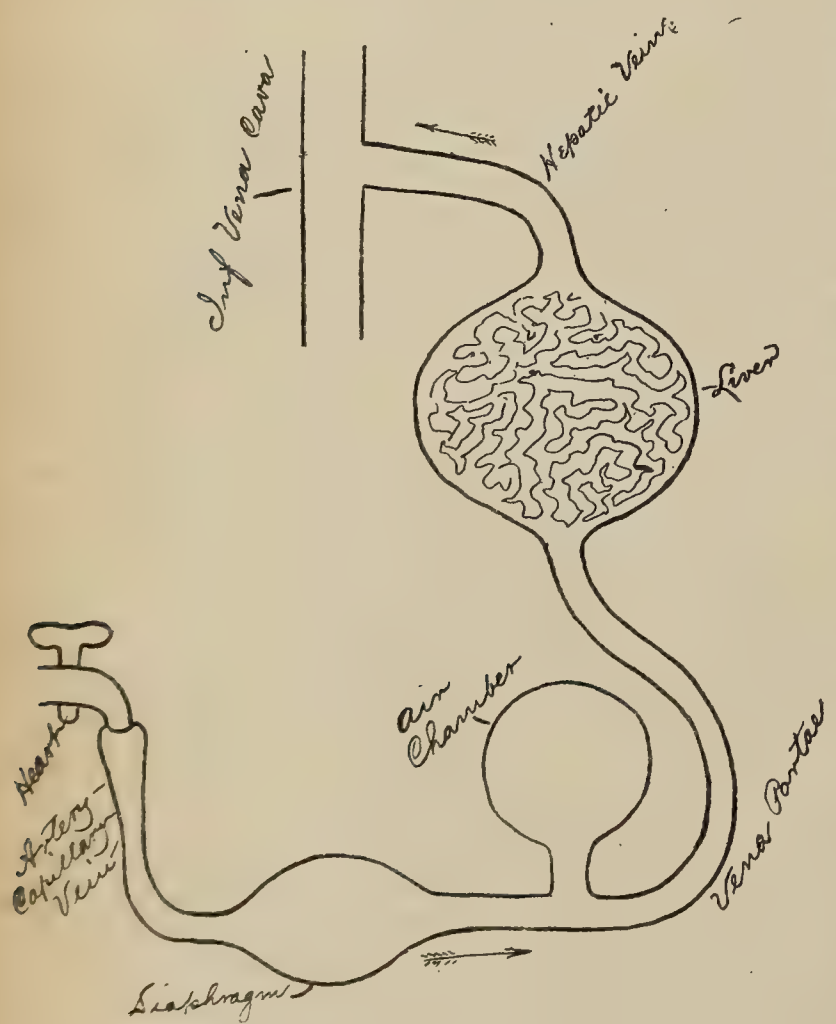
[4]Holmes' System of Surgery.

[5]International Encyclopædia of Surgery.

FURTHER NOTES ON THE FUNCTIONS OF THE DIAPHRAGM, WITH APPROXIMATE ESTIMATES OF PULMONARY AND ABDOMINAL PRESSURES.

BY J. D. O'BRIEN, PEMBROKE, KY.

To illustrate the peculiarities of the portal circulation, attach the open end of a soft rubber syringe to the stopcock of a water faucet. The tube represents a branch of the aorta and its capillary; the rubber bulb, compressed by hand, synchronous with inspiration, represents visceral pressure around each vein in the abdomen, produced by contraction of the diaphragm; the air-chamber at the end of the bulb helps to convert a rhythmic wave into a continuous flow, and illustrates the effect of compressed intestinal gases on the circulation. The other end of tube represents the veins continuous with the portal vein, and the pipe attached to a glass globe placed above and filled with a sponge shows the portal vein distributed in the liver, collected again and sent off by the hepatic veins into the inferior vena cava. The diagram annexed shows the relations of the



junction, and its study will simplify much about the action of the liver. First the cardiac force, or heart-pressure, forces the aortic blood into all the arteries and capillaries. Then the diaphragm contracting, throws its pressure on all the veins arising from the alimentary canal, spleen and pancreas, lifting and driving forward all the blood charged with food products, and splenic and pancreatic action, and forces their commingled currents into every part of the liver, as represented by the sponge-filled globe. Here the fluid is inspected and rehandled, the bile and other waste products are eliminated and returned to the bowels, and the blood elements, still further advanced toward organization, are carried by the hepatic vein, and sent into the inferior vena cava.

But the blood is not yet prepared for the elective affinity which claims each appropriate element for all the forms of cell-growth. Passing through the right heart the whole current is carried to the lungs, the carbonic acid is now exchanged for fresh oxygen, and the renewed blood is sent to the left heart and thence to every cell in the body. It is carried in part to the brain, and sensation, volition, motion, voluntary and involuntary, and all vital capacities, are imparted and sustained thereby. Digestion, muscular energy, repair and waste are all dependent upon the purified blood current. Follow the course of an alcoholic drink by the diagram. First into the mouth, œsophagus and stomach; absorbed by veins, it is lifted up into the portal circulation, forced through inspection into the liver; goes through the right heart to the lungs, and a part of it eliminated (when breathing is full) goes back to the left heart, divided up, a small portion being sent to the brain, the rest going through the general circulation; and so it goes until it is assimilated or excreted. If continued, it produces disease in the liver and in the brain, and adds a new artificial growth to a healthy maturity, a sort of a general elephantiasis of tissue.

Now what is the amount of these forces in ordinary full breathing? Let us see. Construct a cylinder and divide it into five equal parts. Adjust a piston which will work up and down through the central space. This central space is common or neutral; when the piston rises, the space is added to the lower compartment. When piston descends, the space is in the upper chamber. So, in inspiration, the space through which the diaphragm moves is added to the thorax. When expiration ensues, it becomes a part of the abdominal cavity. Now the pressure of the atmosphere is about fifteen pounds to the square inch. In inspiration the thorax is enlarged, the residual air expands and fills it, and the pressure within is about ten pounds. The external air, under a fifteen-pound force, is rapidly driven in and the lungs filled. When the diaphragm is relaxed and driven up into the thorax, it drives out the air from the lungs, and to complete respiration in a short time, it requires a force of about twenty pounds to force it out into an atmosphere of fifteen. So we will place pulmonary pressure during expiration at twenty pounds. The abdominal pressure which thrusts up the diaphragm, is first greater, and, at the termination of the movement, just the same, or twenty pounds during expiration. Now to force the viscera downward and distend the abdominal walls requires a much greater force, which we will assume to be about thirty pounds on the average in full breathing, and much greater in strong inspiration. Then in inspiration we have a pressure of ten pounds above the diaphragm and thirty below, and this lower

pressure powerfully condenses the gases and distends the muscular walls. There are two systems of circulation below which commence about the capillaries, and cannot go backward, but are driven forward by pressure, because their terminal extremities are in the thoracic cavity, where the pressure is less; hence the lacteal fluids are lifted up and out of the cavity through the thoracic duct, and the venous blood is forced outward and upward through the portal circulation, as above described.

There is much said about cholagogues in therapeutics, and much disagreement thereabout, but there is one cholagogue, pure and simple; it is exercise and action of the diaphragm, which is the great causa causarum, the potential agent in the portal circulation. This piston-like muscle forces the portal blood up through the liver, and the bile is evacuated by vital and mechanical processes which are dependent upon this diaphragmatic force. Medicines which irritate certain parts of the alimentary canal, and invite greater activity in the circulation (*ubi irritatio, ibi fluxus*), do act indirectly upon the liver, and must be often used to fulfill these indications, but active habits and arm exercises that develop diaphragmatic force will as certainly secure a healthy liver, as sedentary habits, enforced idleness, confinement in man or beast, will produce the fatty liver. The animals in menageries die on account of a deficient portal circulation, and stallfed oxen, pigs and poultry, in addition to excessive fat elsewhere, have their livers enormously enlarged from unnatural environments. Our forefathers who felled our forests and grubbed our fields; our mothers who used the distaff and spindle, spinning, carding and weaving our garments—these had erect carriages, well-rounded chests, the exception in these rather effeminate times. But the animal man is capable of the highest development in physical beauty and endurance, and when we have established our groundwork upon true anatomical and physiological principles, we shall have a plea to make for 75,000 insane, deprived of liberty, and forced into habits contrary to physiological principles, and therefore grossly abused.

DERMOID CSYT OF OVARY—PERITONITIS—OPERATION.

BY DRS. J. T. WHITE AND F. WALTER, PERRY, MO.

We desire to briefly report the following case, the unfortunate termination of which adds to the large stock of testimony in the literature of abdominal surgery, favoring the early removal of ovarian cysts before the onset of peritonitis, a complication liable to arise at any moment, and to convert what would have been a comparatively safe operation into one of the most desperate.

The patient, æt. 30, and mother of one child, always enjoyed good health until five years ago, when she began to complain of a dull pain in the left inguinal region, aggravated at each menstrual epoch. After one year of such suffering she was treated by a physician for an attack of cystitis, which persisted for several months. Prior to this she had had symptoms of a localized peritonitis. Two years subsequent to the initiation of these symptoms the pelvic pain increased, frequently coursing down the left thigh, embarassing locomotion and causing a feeling of numbness. A small tumor was at the same time observed, which increased in size very slowly until two months ago, when matters culminated with the onset of severe pain in a local peritonitis. Bi-manual examination revealed a tumor of an oblong shape, its superior extremity reaching to the anterior superior spine of the ilium, movable, independent of the uterus, and quite firm to pressure. Sedatives with hot fomentations were employed for a few days, in the hope that the inflammatory trouble might subside; the increasing tenderness, rigid dorsal decubitus, some rise of temperature and slight gastric disturbance all pointed, however, to its progressive character. Operative interference was then proposed, and was, after some delay, accepted.

The patient's condition at this time was as follows: Pulse, 120; temperature, 102°; respiration, 25; abdomen tympanitic and painful; there was some vomiting.

Operation.—After being etherized an incision was made in the median line from the umbilicus, and just stopping short of the pubis; the intestinal coils were found adherent to the anterior wall of abdomen, as well as to the tumor. The latter was universally adherent, and being quite friable, was ruptured in the attempt of enucleation, its contents, semi-purulent in character, escaping into the general cavity. The pedicle being transfixed and tied in halves, the tumor was removed, the abdominal cavity freely flushed out with sterilized water, the incision closed with silk, and a drainage tube left in the lower angle of the wound. The patient was on the table for one hour, and suffered greatly from shock; pulse was imperceptible at the wrist. She rallied, however, in about twelve hours. The peritonitis continued to extend, and terminated her life on the fourth day following the operation.

In view of the progressive character of the peritonitis, earlier operative interference might have been rewarded by a happier result, but in the hope that the patient might be bridged over so as to avoid the necessity of operating in inflamed tissue, it was delayed until one-third of the membrane was involved, leaving but a slender foundation for hopes of a successful issue.

A Varnish for Metals.—The following varnish will maintain its transparency, and the metallic brilliancy of the articles will not be obscured: Dissolve ten parts of clear grains of mastic, five parts of camphor, five parts of sandarach, and five parts of elemi in a sufficient quantity of alcohol, and apply without heat.

REPORT ON PROGRESS.

THERAPEUTICS.

BY F. NEUHOFF, M.D., ST. LOUIS.

Too Early Application of Antisyphlitic Treatment.

Prof. Kaposi has recently expressed himself as opposed to beginning antisyphlitic treatment too early in the disease (especially before the appearance of the secondary symptoms which it is intended to prevent) He claims that this too hastily instituted treatment predisposes to future affections of the nervous system.—*St. Petersburg Med. Woch.*

Nocturnal Incontinence of Urine.

Van Tienhoven attributes nocturnal incontinence of urine to insufficiency of the vesical sphincter, which permits the urine to enter the upper urethra. This causes contraction of the detrusor muscle which expels the urine.

A rational therapeutic measure consists in having the patient sleep in a bed the foot of which is higher than the head. By this treatment alone, the author has attained a prompt cure in 14 cases.—*St. Petersburg Med. Woch.*

Strychnine in Heart Diseases.

Baldo Zaniboni, who has made numerous clinical observations by the aid of the sphygmograph, comes to the following conclusions:

1. Nitrate of strychnia is undoubtedly a powerful heart stimulant.
2. It strengthens the systole, lengthens the diastole, overcomes irregularity, and raises the arterial pressure.
3. It obviates acute dilatation and the danger of cardiac incompetence.
4. By its use, respiration becomes freer, and attacks of dyspnœa are prevented.
5. Strychnia is powerless, only when the nervous and muscular elements of the heart are no longer capable of stimulation.
6. Œdema which has resisted digitalis can be made to disappear through strychnine; under its use, diuresis becomes abundant, but no albuminuria is occasioned, nor do the phosphates in the urine increase.
7. The body temperature is not affected.
8. The appetite improves and the bowels become regular.
9. The hypodermic administration of strychnia nitrate occasions no convenience. The dose for the beginning is $^1/_{65}$ of a grain 3 times a day. This may be gradually increased to $^1/_{30}$ of a grain.
10. When the medicine is discontinued, no disagreeable symptoms occur from the abstinence.
11. No cumulative effects have been noticed.—*Revue Ven.—Deut. Med. Zeit.*

Chlormethyl in Neuralgia.

In the hands of Dr. Steiner, chlormethyl has proved a superior remedy in neuralgia, especially sciatica. It exercised both a palliative and a curative influence, and promptly cured many cases in which the usually applied remedies had completely failed.

Chlormethyl is a gas, which becomes a liquid under the pressure of four atmospheres. It is put up in copper syphons. From these, it is sprayed on to the site of pain, where it produces intense cold. Its action is similar, though much more powerful, than ether. It relieves the pain almost instantaneously. This relief sometimes proves permanent. In other cases the pain returns the next day. The remedy must then be re-applied daily, until the relief becomes permanent. This usually occurs very soon.

The remedy, though in common use in France, has not been used in Germany outside of Dr. Steiner's practice. Dr. Steiner accounts for this by the fact that until very recently it could not be procured anywhere in Germany.—*Deut. Med. Woch.*

Aristol.

The place which aristol is destined to occupy in therapeutics is as yet undetermined. Enough experience has,however, been accumulated to show that it has awide field of usefulness, and that it possesses superior qualities which will cause it to be substituted for many now commonly employed remedies.

Eichhoff has given aristol a thorough trial, and speaks of it (in the *Deut. Med. Woch.*) as follows:

1. Aristol is a perfectly harmless drug.
2. It is non irritant and does not discolor the skin or clothing.
3. In acute gonorrhœa, soft chancre, and favus, it is useless.
4. It is efficient in psoriasis, eczema parasitarium, mycosis, tinea tonsurans and sycosis.
5. It is likewise useful in many chronic ulcerations of the skin and mucous membranes, as ulcer cruris, syphilitic ulcers and gummata, scrofuloderma, skin cancer, bubo wounds and lupus vulgaris. The last named disease must, however, be first caused to ulcerate by the application of cauterizing remedies.

In all the above diseases, aristol is a harmless cicatrizing agent.

6. Furthermore, it has been successfully introduced into laryngology and rhinology. Ozœna can be deprived of its smell by the daily insufflation of aristol.

The usual method of applying the drug is in the shape of a 10% salve. In ulcers, however, the powder form may be substituted.

Because aristol has been found to have no germicidal properties when applied to pure cultures of bacilli, does not prove that it may not have such an action when applied to the tissues, for in the latter instance it may be subjected to chemical agents and changes impossible to imitate.

Chloroform Internally.

About a year ago Stepp reported on the beneficial results which he obtained by the administration of chloroform in acute digestive disorders, chronic ulcer of the stomach, croupous pneumonia and abdominal typhoid. He has treated about 18 cases of the above affections by chloroform exclusively (excepting a few doses of quinine). Somnolence, delirium, and dry tongue disappeared rapidly. In about one week the temperature of the typhoid cases was considerably lowered. The maximum duration of the fever was 30 days. Many cases lasted only 8 days. Only 1 death was recorded.

The chloroform never gave rise to any disagreeable effects. About 15 mimims, highly diluted, were given divided into three doses, during 25 hours.—*Munich Med. Woch.*— *Wien. Klin. Woch.*

Gonorrhœa Treated by Ichthyol.

Koster finds ichthyol to be a splendid remedy for gonorrhœa. He employed it in the shape of a 1 to 1000 solution in 3 cases of gonorrhœal urethritis in the male and in 1 case of gonorrhœal cystitis in the female. In the former class of cases the solution was injected into the urethra 3 times a day. On the second day the pain on urinating and the painful nocturnal erections had disappeared, and in from 8 to 20 days all discharge had ceased.

In the case of cystitis in the female 150 grams of the solution were injected into the bladder twice daily. The remedy was retained for about 5 minutes, and was voided through micturition. After two days' treatment no more sediment was visible in the urine and all pains had vanished.

The two injections daily were continued for 7 days. After this one injection a day was administered during one more week, at the end of which time the disease was perfectly cured.—*D. M. Z.*— *Wien. Klin. Woch.*

Gastro-Neurosis Treated by Cannabis Indica.

Germain See has employed Cannabis indica in the following affections:

a. In chemical alterations of the gastric juice. *b.* In gastro-intestinal neurosis.

The medicament relieves the pain in the above disorders and restores the appetite. In hyperacidity of the stomach the action of the Cannabis indica must be aided by the administration of large doses of bicarbonate of sodium at the end of the digestive process.

Cannabis Indica has no effect on atony and dilatation of the stomach, but acts favorably on gastric cramps and nervous vomiting. It assists the escaping gas from the stomach and eases the painful sensations of pyrosis. It promotes the digestion when the latter is retarded by nervous conditions or made painful by hyperacidity, although it does not effect the hyperacidity itself. It also calms the the intestinal digestive processes.

Remote symptoms, like migraine and vertigo, are also favorably affected by the drug, while hypochrondria and hysteria are not influenced by it. It is a gastric sedative, but it does not render other remedies, like alkalies, purgatives, antiseptics and dietary regulations unnecessary. The dose of the extract is $^5/_6$ of a grain 3 times a day.—*Deut. Med. Zeit.*

Intestinal Obstruction.

Clausi cured two cases of the most obstinate intestinal obstruction which had resisted all treatment, by the use of clysters composed of 2½ drachms of ether sulphuric dissolved in alcohol, to which 9 ounces of aquæ fœniculi were added.

There resulted much belching of wind and, soon after that, free evacuation of the bowels followed by disappearance of all morbid symptoms.

This efficiency of ether may be attributed to its power of promoting peristalsis and to its vaporization which distends the bowel and increases its caliber.— *Wien. Klin. Woch.*

To Relieve Pain in the Head.

Naegle announces a procedure which he claims will speedily relieve any pain located in the head or face. The method consists in elevating the hyoid bone and the larynx, and holding them in that position for about one minute.

The various neuroses of the nerves of the head including ordinary toothache and the distress following dissipation were all successfully relieved in a few, and often in but one sitting.—*Corresp. f. Schw. Aertz.*— *Wiener. Klin. Woch.*

Carbolic Acid in Tetanus.

Bacelli speaks of carbolic acid as an efficient remedy in traumatic tetanus. He injects $^1/_6$ mimims of carbolic acid every hour.

As a result of this treatment the severity of the muscular spasms is very much decreased, and the general condition of the patient is improved.

The author attributes the therapeutic action of the acid to the fact that it lessens the excessive reflex irritability of the spinal marrow.— *Wien. Klin. Woch.*

Influence of Opium, Morphine and Codeia upon the Stomach.

Abutkoff sums up the results of his experiment on six healthy men asfollows:

These drugs visibly diminish stomach digestion; they postively diminish hydrochloric acid secretion; they weaken the general acid condition of the gastric juice; they diminish its digestive power, but do not influence lactic acid fermentation; they do not influence the absorbing property of the stomach; opium has the most,

codeia the least effect. Hence, in persons with weak digestion, opiates should not be administered until two or three hours after meals, while they may be used with impunity in cases of hyperacidity.—*Deutsche Med. Zeit.* —*Deit. Gazette.*

Specific for Rhus and Ivy Poisoning.—Dr. S. B. Straley, of Huntsville, N. J., reports the following in a recent issue of the *Times and Register*: A. H. æt. 60, a laborer, came to my office with an inflammation of the skin of the hands and forearms extending to the middle of the arm. Beginning with lotions of lead-water, I tried the most effective remedies for rhus poisoning, which careful inquiry into the patient's habits proved this to be, and was much chagrined to find that nothing gave relief to the itching and burning, or held in check the inflammation.

As a *dernier ressort* a strong decoction of chestnut leaves (*Castanea Fagus*) was used, bathing the inflammed parts every three or four hours. In twenty-four hours all the distressing symptoms had subsided, and the patient was discharged cured.

Since using the above, which was in August, 1888, I have prescribed the castanea treatment for all cases of rhus and ivy poisoning, and in all stages of the inflammation, with the single result in every case of perfect relief from all symptoms in from twenty-four to seventy-two hours.

I do not find this treatment in books on diseases of skin which I have read, and therefore offer it to the profession for what it is worth.

After-Pains.—Dewees is authority for the following rules for the prevention of after-pains:

1. Do not rupture the membranes before the neck is completely dilated.
2. After the head is born make no traction, but allow the uterus to expel the shoulders and trunk.
3. Do not extract the placenta until the womb is thoroughly contracted.
4. After the placenta is delivered, excite the womb so as to oblige the muscular fibres to contract as much as possible.

Leishman says: "Nothing does so much to prevent their being severe as pressure outside upon the womb during the expulsion of the child and placenta, thereby producing firm contractions." When traction is made upon the cord before the placenta has been expelled from the uterus, the placental vessels are often torn and bleed, and thus a clot is formed. Efforts to deliver the placenta should be directed to producing contractions. These will expel it without leaving a clot; then by continuing to grasp the womb through the abdominal walls, should it soften, the fact can be recognized, and efforts made to prevent relaxation. This can be done with one hand and the placenta removed from the vagina with the other.—*Med. Summary.*

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Editorial Change.

Having in contemplation an early departure for Europe, with this number I sever my connection with the Review.

Cognizant of the eminent ability of my successor, Dr. G. W. Broome, I do not hesitate to bespeak for it a continuance of the good will and hearty support hitherto accorded the journal by its many readers; and I feel assured of its unswerving adherence to the cause of progressive medicine.

Bransford Lewis, M.D.

Micro-Organisms in Underwear.

In many diseases of parasitic origin, and especially in certain diseases of the skin, it is most important to provide against reinfection, which is very apt to come from the clothing, and from the underwear in particular. To the fact that, perhaps, insufficient attention is devoted to this important detail must be ascribed much of the indifferent success which often follows treatment. It would be well, therefore, to insist upon thorough disinfection of the underwear before allowing it to be worn again, in cases of this character; it would also be well to know whether there is much difference between the various kinds of goods used for underwear, as to their receptivity for micro-organisms, and if so, to what qualities these varying degrees of receptivity are due. Dr. Hobein undertook some investigations in this di-

rection at the instance of Prof. Koch, and gives his results in a paper published in the *Zeitschrift f. Hygiene* (*Centralbl. f. d. ges. Ther.*). He found that microbes reach the underwear by means of particles of dust (effete epithelial cells, soil, etc.), and are retained there by being caught between the web and the "fluff" of the cloth; less often they simply adhere to the surface of the texture. Therefore, the more loosely the cloth is woven, and the greater the amount of "fluff" on its surface, the more apt will it be to retain dust particles. When goods are alike in every way except in thickness, the heaviest will be the most likely to harbor dust.

Practically, the results of his investigations confirm ideas that have been hitherto accepted as correct. Smooth and finely woven linen and cotton stuffs are to be regarded as the cleanest. Not only do they soil less easily and retain fewer micro-organisms, but they can be most thoroughly cleansed by boiling, without being much altered by this process.

It must be acknowledged that these substances retain their good properties, in spite of long use and the action of moist heat, better than do woolen garments. We are, therefore, right in using such material for clothing the sick, for outer clothing in hospitals, for the making-up of operating suits or gowns, in short for all purposes in which it is desired to reduce to a minimum the chances of taking up and transporting the organisms by means of the clothing. It was also shown in the course of these investigations that under ordinary circumstances the germs do not develop and multiply in the clothing.

A New Method of Introducing Premature Labor.

A new method of introducing labor, introduced by Dr. Schrader, of Hamburg (*Med. Chir. Rund.*), is based upon the observation that cold has a more irritant action upon the nerves, and of course on the muscles as well, than warmth. Simple irrigation with water at 45°F. can not be carried out, inasmuch as the cold would after a time cause unbearable pain, and for this reason Schrader believes it necessary to occasionally interrupt the cold irrigation and employ a warm stream instead. For this purpose he uses a glass vaginal tube, attached to a T-tube, one arm of which is connected with a cold water receptacle, and the other with warm water. By pressing one tube and releasing the other we can vary the stream at pleasure. To carry out such an arrangement two persons are necessary, one to attend to the tubes and the other to see that the vessels are kept full. At each sitting about six gallons of cold water (45° F.) are used, and about half the quantity of warm water (110° F.). The stream of the douche should have a fall of about 5½ or 6 feet. The patient receives the douche sitting on a chair, the front legs of which are placed in a large pan or vessel; she must lean slightly backward, so that the abdominal pressure may interfere less with the dilatation of the vaginal vault. We begin by injecting one or two pints of the warm water, and then use the cold water, after pressing back the perineum with the tube to allow the warm water to escape. In this way we get a greater effect from the cold water. The cold water is likewise removed from the vagina before returning to the warm stream. The two streams are thus employed in alternation, each time using about twice as much cold water as hot, until the quantity of water mentioned is used at one sitting. The procedure is repeated at intervals of about 1½ hours. In cases where the result is not promptly shown, only one hour's rest is given between the douches. The douches must be repeated until the pains continue strong during the intermissions in the use of the douche, and are so strong that their cessation is rendered most improbable.

Premature labor was induced in this manner in 22 cases; in 18 this method alone was used, but in the other four cases other means were also employed.

The reason for inducing premature labor was in twenty cases a contracted pelvis, in one case an artificial perineum, and in one case kidney disease. The results, as regards the mothers, were as follows: One died of eclampsia twelve hours after delivery; all the others recovered well after an easy puerperium. In the eighteen cases in which the douche method was exclusively employed to induce labor, twenty children were born; of these fifteen entered the world alive. In these eighteen cases the alternating douche was used 192 times, making an average of 10.6 douches for each patient. Nine of the cases needed but thirty-two douches, an average of 3.6 douches each. It may be accepted as a rule that the colder the water and the shorter the intervals of rest, the less will be the number of douches required, and the shorter the duration of the labor.

Some Practical Hints as to Koch's Method.

In employing the Koch method of curing tuberculosis only the most favorable cases are selected as a rule, while the less fortunate ones, in whom the disease is farther advanced, are deprived of the possible benefit which may follow its use.

It is a point in selecting cases, so we are told, to take only those in whom the temperature is quite normal or near it. If a patient has fever the use of parataloid is apt to be attended by great discomfort and danger. Dr. Ludwig Vaczi, of Nagykaroly, has paid much attention to the new method, and in an article published in the *Orvosi Heti Szemle—Med. Chir. Rundschau*, he corroborates this statement. He says that when the reaction fever is added to an already existing fever, the result may be conditions of severe collapse and perhaps death. In laryngeal tuberculosis we should first see what degree of inflammation already exists, for if it be much intensified circumscribed gangrene may occur, giving rise to such a state of dyspnœa that tracheotomy is rendered necessary. If any inflammatory trouble of the

eyes exists the use of Koch's method may set up serious complications. Finally, in cases of lupus, as well as in flammatory articular and glandular disease, we should likewise exercise great caution. Vaczi advises that no injections be undertaken in febrile cases; that before employing the lymph we should first combat the fever by the simultaneous administration of antifebrin and quinine. Where the heart is affected we should first use digitalis and quinine afterward. In laryngeal disease of a tubercular nature the new treatment should be preceded by local applications of cocaine; in eye disease we should first use atropia locally. Not only should the utmost care be exercised to select the case properly, but where there is the slightest contra-indication to the use of the treatment, the system should be sufficiently prepared and strengthened to endure the reaction with the least risk.

MEDICAL ITEMS.

Creolin in Scabies.—For scabies it is recommended to use 5 parts of creolin to 100 of vaseline.

For the Vomiting of Pregnancy.—Carney recommends painting the cervix uteri with a saturated solution of cocain.

Dr. H. W. Loeb has been elected Professor of Diseases of the Nose and Throat, by the Faculty of the Marion Sims Medical College.

We congratulate the doctor on his rapid progress.

Thiol in Skin Diseases.—Schwimmer has used thiol in numerous cases of skin disease, usually in the form of a solution, (1 to 3), but sometimes as a dry powder or as an ointment (thiol liq. 2.0, axung. 20.0). It quickly relieved and cured a severe case of dermatitis herpetiformis, several cases of herpes zoster, beginning acne rosacea and acne vulgaris, and even of papular and weeping eczema. It has a prompt action in small burns. It has the advantage over ichthyol of being odorless.

Suicides of School Children in Germany.—During the last eight years 289 school children committed suicide in Germany; of these, 49 were girls. The causes assigned were, fear of punishment, 80; mental disease, 26; morbid ambition, 19, fear of examination, 16; practical joking 7; disappointed love, 5. This is a terrible indictment against "over-pressure," the effects of which can scarcely be expected to be limited to those hapless children who are driven to destroy themselves.

Remarkable Recovery from Drowning.—In London an apparently dead man was recently found floating in the Thames, and on being brought to the shore several physicians declared him lifeless. Another physician, more sanguine than his fellows, worked with the man for two hours before eliciting a sign of life, but finally succeeded in resuscitating the patient who is now in the best of health. This case emphasizes the necessity of patience and persistance in resuscitating the drowned.

The Spanish Prize.—The Spanish Medico-Chirurgical Academy offers a prize of 250 pesetas and the title of corresponding member for the best production on the subject: "The Diagnostic Value of Icterus in Diseases of the Liver." (Valor diagnostico de la ictericia en las enfermadades del higado.) The essay, written either in Spanish, Portuguese, French, English, Italian or German, must reach the Secretary of the Academy, Jose Francos Rodriguez, Montera 22, Madrid, before September 15, 1891.

Strychnine in Snake-Bite.—A controversy is raging in Australia on this subject. The treatment of snake bite by the hypodermic injection of strychnia was introduced by Dr. Mueller, and evidence of its success has been adduced by other medical men who have tried the plan. Dr. T. L. Bancroft has found, by experiments on Guinea-pigs, that the method is useless. Recovery from snake bite, it is well known, does imply cure, and it is not easy in particular cases to distinguish the one from the other.—*J. A. M. A.*

Anæsthetic Mixtures.—The following are the mixtures most commonly used (*Deutsch. Med. Zeit.*):

1. English or ACE mixture;
   - Alcohol, - - - - parts 1.
   - Chloroform, - - - - " 2.
   - Ether, - - - - - " 3.
2. Vienna mixtures;
   - *A* Chloroform, - - - - parts 1.
   - Ether, - - - - - " 2.
   - *B* Chloroform, - - - - parts 3.
   - Alcohol,
   - Ether, - - - - aa " 1.
3. French mixture;
   - Chloroform, - - - - parts 4.
   - Alcohol, - - - - - " 1.
4. Strassburg mixture;
   - Chloroform, - - - - parts 1.
   - Dimethylacetal, - - - - " 2.

The Treatment of Dandruff.—Dr. Edward Clarke, in the *Lancet* for December 27, states that he has had good results in persistent dandruff from the following treatment: The scalp should first be thoroughly washed with soap and hot water and then thoroughly dried with a warm and soft cloth; there should then be rubbed into the scalp a glycerole of tannin, of the strength of ten to thirty grains to the ounce. Very obstinate cases will require the higher strength of tannin. This process should be repeated twice a week at first, once a week afterward. If tannin fails, as it will in some cases, then resort is had to resorcin. After the formation of drandruff has ceased the head should be rubbed daily with

olive oil containing, to the ounce, ten grains of carbolic acid and a drachm of oil of cinnamon.—*N. Y. Med. Jour.*

Christian Science Again.—William Protzman of Des Moines, Io., a man æt. 24, died about two weeks ago after an illness of two months. He had no medical treatment, and the services of City Physician Matthews were refused. His disease was said to be "typhoid pneumonia" by the Christian Scientists who had him in charge. The authorities took charge of the remains, ordered a post-mortem and instituted an inquest. The coroner's jury returned a verdict holding the Christian Scientists responsible; it is stated that the evidence submitted will be turned over to the Grand Jury and the case pushed.

BOOK REVIEWS.

An Illustrated Encyclopædia of the Science and Practice of Obstetrics. Illustrated with the celebrated Moreau's Atlas of Eighty-four Folio Plates, and One Hundred and Thirty-three Wood Cuts. Edited by F. H. Gitchell, M.D., F.C.P., Member of the Pathological Society of the County Medical Society, Philadelphia; Corresponding Member of the Gynæcological Society, Boston; Late Gynæcologist to the Jefferson College Hospital; Author of the "Maternal Management of Infancy," etc. 1890. Former price, (in parts) $14.00; present price (bound) $6.00. J. H. Chambers & Co., 914 Locust Street, St. Louis, Mo.

The purpose of this most excellent work is forcibly presented in the editor's preface, which says: "Nothing is more important to the obstetrician than to be prepared to meet the emergencies and difficulties that constantly arise in the lying-in room, and for the treatment of which, there is then no time to consult authorities. It goes without saying that in no way can the malpositions of labor be so indelibly fixed in the mind as by the careful study of correctly drawn anatomical plates. Once familiar with, the mind retains these impressions. This is particularly the case when these plates are accompanied with a full description and explanation of the conditions and positions represented by them."

And the author might, with equal propriety and truth, have applied the point to the teaching of the conduct of labor as it occurs normally: A firm, clear and accurate conception of which will furnish a ready means, not only for recognizing abnormalities in connection with this function, but also for their correction and proper management. "Seeing is believing" might well be changed, to fit the present case, into, "seeing is remembering."

The work at hand, both through its super-excellent engravings and its comprehensive text, is fully capable of theoretical knowledge of obstetrics in this advantageous manner to the student and practitioner. And it may be said that much practical experience and clinical demonstration do not lessen the desirability of such, theoretically.

In preparing the volume, the editor, appreciating the fact that no outhor is equally strong on all branches of his subject, has selected from various authors, their ablest contributions, thus making the work an exhaustive encyclopædia, as the title proclaims.

For the price, (bound $6.00) this work is certainly one of the cheapest on the market.

A Practical Treatise on Impotence, Sterility and Allied Disorders of the Male Sexual Organs. By Samuel W. Gross, A.M., M.D., LL.D., Professor of the Principles of Surgery and Clinical Surgery, Jefferson Medical College, Philadelphia; Formerly President of the Pathological Society of Philadelphia, etc. 1890. Fourth edition. Revised by F. R. Sturgis, M.D. Philadelphia: Lea Brothers & Co.

The wide prevalence of the views of Prof. Gross at the present day bears testimony to the reception which has been accorded to the three previous editions of this work. Though the first edition appeared several years ago, the writings of the author are held in the very highest estimation to day.

Nevertheless, study on these subjects during the last few years, has necessitated their revision to a certain extent, and we feel that the interlinings and remarks of Dr. Sturgis are both appropriate and sound.

Probably the chapters on impotence and spermatorrhœa embrace the most interesting and instructive portion of the book. The importance of abnormal conditions of the prostate and prostatic urethra as factors in the production of these conditions, is clearly shown; and the author's views do not border on the extremes as is commonly the case with writers on these subjects.

Treatment receives a gratifying amount of attention, and in our estimation the plans recommended are both rational and apposite.

Lectures at St. Peter's Hospital (in 1890) on Some Urinary Disorders Connected with the Bladder, Prostate, and Urethra. By Reginald Harrison, F.R.C.S., Hunterian Professor of Pathology and Surgery at the Royal College of Surgeons of England, etc. London: Baillière, Tindall and Cox, 20 King William Street, Strand, W. C. 1890.

This compilation of the lectures of this eminent teacher is principally valuable for the practical instruction which it affords. Many original thoughts and suggestions are conveyed in the little eighty-page book.

It is certainly open to much criticism from a literary point of view, as a surprising number of instances of "English as she should *not* be spoken" are noticeable. For example: "In two instances the strictures were extremely tight, and it seemed impossible how the cause of the bleeding could have been overlooked."

But in view of the eminently practical character of the book we may overlook its errors of experience.

A Clinical Study of Diseases of the Kidneys: Including Systematic Chemical Examination of Urine, for Chemical Purposes; Systematic Microscopical Examination of Urine Sediments; Systematic Application of Urinary Analysis to Diagnosis and Prognosis; Treatment. By Clifford Mitchell, A.M., M.D., Chicago: W. T. Keener, 96 Washington Street. 1890. Price, $3.00.

In this work the author has endeavored to delineate, as clearly as possible, the relations existing between diseases and disorders, not only of the kidneys, but of other organs as well, on the one side, and of their indicator and interpreter, the urine, on the other.

He is a firm believer in the saying that the state of the urine furnishes a key to the condition of the body; that while there are diseases which do not appreciably affect the urine, morbid urine does indicate disease. And for the purpose of tracing out and recognizing, and through appropriate treatment remedying, these affections, the author has furnished the counsel and data in the book at hand.

Many valuable diagnostic tables of the varied appearances, quantity, color, specific gravity, character of sediment or contents, etc., of the urine appear in connection with the pathological conditions described.

As the author is evidently of homœopathic persuasion, we cannot indorse his methods of therapy, except when they accord with the precepts of the regular profession; but in looking over this part of the work we were surprised to notice how often so called "allopathic" doses are recommended. For instance, pilocarpine one eighth grain, in dropsy, etc.

The publisher's share in the work has been most excellently done; typography, paper and binding are admirable.

Structure of the Central Nervous System. Twelve Lectures by Dr. Ludwig Edinger. Second revised edition, with 133 illustrations. Translated by Willis Hall Vittum, M.D., of St. Paul, and edited by C. Eugene Riggs, A.M., M.D., etc., of St. Paul, Minn. F. A. Davis, Publisher, Philadelphia and London.

The time has come when every general practitioner feels the necessity of extending his knowledge of the anatomy and physiology of the central nervous system so as to embrace the more important facts which the recent methods of investigating cerebral and spinal functions are almost daily bringing forward. The facilities for obtaining such information have been multiplying with the demand, but in this country none too fast. Hence it gives no great pleasure to read this work, for which we are sure there is a demand, one which so well supplies it. The editor and translator are to be congratulated, not only because they appreciated the need of a good work of the kind, but for the admirable manner in which they set about to supply it. With the aid of their publisher, they have produced a little volume in this translation for which we bespeak a deserved popularity.

In the treatment of many points the author's methods are refreshingly original, both in language and illustration. All of this is faithfully preserved in the American edition by translator and printer. We see no opportunity to speak other than commending words.

The Evolution of Sex. By Prof. Geddes and J. Arthur Thompson. With 104 illustrations. Two double numbers (132 and 133) of the Humboldt Library. Price 30 cents each. The Humboldt Publishing Co., 28 Lafayette Place, New York.

Such a work as this, written by Prof. Geddes, who has contributed many articles on the same and kindred subjects to the Encyclopædia Brittanica, and by Mr. J. Arthur Thompson, is not for the specialist, though the specialist may find it good reading, nor for the reader of light literature, though the latter would do well to grapple with it. Those who have followed Darwin, Wallace, Huxley, and Haeckel in their various publications, and have heard of the later arguments against heredity brought forward by Prof. Weissmann, will not be likely to put it down unread. The authors have some extremely interesting ideas to state, particularly with regard to the great questions of sex and environment in their relation to the growth of life on earth. They are to be congratulated on the scholarly and clear way in which they have handled a difficult and delicate subject.

Wood's Medical and Surgical Monographs. Vol. VIII, No. 3, December, 1890. William Wood & Co., 56 and 58 Lafayette Place, New York. Containing:

I. Practical Guide to the Demonstration of Bacteria in Animal Tissues. By Dr. H. Kuhne.

II. On the Present Position of Antiseptic Surgery. By Sir Joseph Lister, F.R.S.

III. Cancer and Its Complications. By Charles Egerton Jennings.

IV. The Treatment of Epilepsy. By Dr. Ch. Féré.

V. Hand-Book to Dr. Koch's Treatment in Tubercular Disease. By Drs. Gruen and Severn.

Vol. IX, No. 1, January, 1891. Containing:

I. Advances in Bacteriology. By R. Koch, M.D.

II. Formulary of New Remedies and New Medicinal Preparations. By H. Bocquillon-Simonsin.

III. Anæsthetics, a Discussion. By Dr. William Macewen and others.

It is sufficient to say of these monographs, that they are as well handled by their authors as the subjects are interesting.

A Guide to the Practical Examination of Urine. For the Use of Physicians and Students. By James Tyson, M.D., Professor of Clinical Medicine, University of Pennsylvania, and Physician to the Hospital of the University, etc. Philadelphia. P. Blakiston, Son & Co. 1891.

This little work, which in the present has reached its seventh edition, has assumed an enviable position with regard to the literature on urinary testing and examinations. While not as voluminous as some of the German works on this subject, it embraces all that is needed by the practical physician in his battle with disease.

Microscopical, as well as chemical examinations, are presented.

Some Fallacies Concerning Syphilis. By E. L. Keyes, M.D., Consulting Surgeon to Bellevue, Charity, St. Elizabeth's and Skin and Cancer Hospitals, of Mew York, etc. 1890. Geo. S. Davis, Detroit, Mich.

Of the many valuable monographs issued in the series of Physicians' Leisure Library, this is probably one of the best, refuting, as it does, many incorrect, though widely prevalent notions regarding this omnipresent disease, syphilis,—and notions, too, which interfere with its proper treatment and entail the serious consequences of its contagion, and transmission perhaps.

The fallacies which form the basis for the book have already appeared in the Review, and need not be here repeated.

A Compend of Diseases of Children. Especially Adapted for the Uses of Medical Students. By Marcus P. Hatfield, A.M., M.D., Professor of Diseases of Children, Chicago Medical College, etc. 1890. P. Blakiston, Son & Co.

The anatomy and physiology of children as well as the diseases of child-hood, are embraced in this question-and-answer compend.

Another volume of the same series is on the subject of "Gynæcology," by Henry Morris, M.D., Late Demonstrator of Obstetrics and Diseases of Women and Children, Jefferson Medical College, Philadelphia.

Prof. R. Koch's Method to Cure Tuberculosis. Popularly Treated. By Dr. Max Birnbaum. Translated from the German by Dr. Fr. Brendecke. With an appendix, being Prof. Koch's first communication on the subject, translated from *Deut. Med. Woch.*, and exploratory notes by the author. H. E. Haferkorn, Publisher. Milwaukee, Wis. 1891.

Though it is intended for popular reading, the work is wholly unsuited for that purpose, for the technical terms employed place the meaning of the passages far beyond the reach of the average reader. The author is evidently a most enthusiastic admirer of Koch and his method, and promises results from the latter which we can even now declare to be visionary and destined never to be realized. The translation is a poor one, being stilted and full of German idioms. To the professional reader the book may be useful as being a brief presentation of the protean forms of tuberculosis. The publisher's work is neatly done. The book may be had either in cloth or paper, the price of which is $1.00 and 75 cents respectively.

Dr. Kallay's Aerztlicher Almanach, X Jahrgang. Wien., 1891. Verlag von Wilhelm Braumuller u. Sohn, k. u. k. Hof. u. Univ.-Buchhandlung.

We cannot well recommend Dr. Kallay's visiting list to the German-speaking physicians in our midst, for it does not in any respect begin to compare with the many useful and convenient visiting lists gotten out in this country. It may be of service to some, however, in that it contains, in addition to the ordinary tables of a visiting list, a table of the most prominent European watering places, together with a directory of the physicians practicing in each, and a list of the medical faculties of all the European Universities.

Text-Book of Hygiene. A Comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American Stand-Point. By George H. Rohe, M.D., Professor of Obstetrics and Hygiene in the College of Physicians and Surgeons, Baltimore; Director of the Maryland Maternite, etc. Second Edition. F. A. Davis, Publisher, Philadelphia and London. 1890.

When this work first appeared it was considered an excellent guide to the subject of which it treats. Of this, the second edition, we can add that it is a thorough revision and amplification of the first edition. One or two new chapters have been added, for example, that on Quarantine by Surgeon Walter Wyman, of the United States Marine-Hospital Service. The scope of the book is most comprehensive, embracing all the subjects pertaining to hygiene. At a time like the present, when the science of Preventive Medicine is day by day assuming a more prominent position in public estimation, and the importance of its study is becoming more generally recognized and more justly appreciated by the mass of the profession, no working library can be considered complete without a work on this subject; and when we say that among the works on this subject the present volume stands in the first rank, the moral to be drawn is clearly evident. The book is complete, thorough, and up with the times, and is presented in the usual attractive and durable style of the publisher. The price is $2.50 net.

ILLINOIS STATE BOARD OF HEALTH. Seventh Report on Medical Education, Medical Colleges and the Regulation of the Practice of Medicine in the United States and Canada, 1765-1891. Medical Education and the Regulation of the Practice in Foreign Countries. By John H. Rauch, M.D., Secretary. 1891.

For the first time in its history the Report on Medical Education issued by the Illinois State Board of Health embraces the medical institutions of the whole world. This is a feature that will be an assistance to medical boards that have to determine the value and validity of a medical diploma.

As regards medical education in the United States, the Report shows the marked changes for the better that have taken place in the past ten years, and it is seen that more progress will be made within the next two years. Most of the changes for the better that have been made in this century have occurred since 1881, when the first number of this Report was published, and since 1882-83, when the schedule of minimum requirements of the Illinois State Board of Health went into effect. In 1882 only 45 colleges in the United States and Canada required educational qualifications for matriculation; now the number is 129. Of the 148 medical colleges 123 now teach hygiene and 119 teach medical jurisprudence. In 1882 these branches were taught in 52 and 61 colleges, respectively. In 1862-83 the average length of the lecture terms were 23.5 weeks; the average is now 26.3 weeks. There are now 111 colleges that have lecture terms of 6 months or more, while in 1882-83 the number was 42. A table shows the results of the examinations before the State Boards of Medical Examiners of Alabama, Minnesota, New Jersey, North Carolina, South Carolina and Virginia since the dates of the organization. Another table shows the results of the Prussian State Examinations in 1890.

Special attention is called to the fact that in some of the largest universities in this country courses preliminary to the study of medicine are now afforded—the University of Pennsylvania, Cornell, Yale, Princeton, Lake Forest and Northwestern Universities, Johns Hopkins and the University of Wisconsin, while Harvard has made arrangements by which those intending to study medicine can take a special A. B. course in three years. The course offered by the University of Wisconsin is fully outlined, as is the one that was proposed by the Medical Department of the University of Michigan, but was rejected by the joint faculties. The Report shows a marked increase in requirements as to preliminary education during the year 1890. It shows also that the movement for four years' study and three courses of lectures is an assured success, and a list is given of the colleges that have adopted or will soon adopt the requirements of longer terms of study.

Several State Boards, having authority similar to the Illinois Board, have already adopted the requirement in this respect, and those that have not done so, will in a short time co-operate in the investment. The potency of this factor will be appreciated when it is considered that these boards directly control the recognition of diplomas in an area embracing about 41,000,000 people, and indirectly in almost the entire area of the United States; and that a number of them exercise jurisdiction in the new States and Territories.

It is suggested in the Report that, with four years' study and three courses of lectures assured, the boards of medical examiners and the colleges should co operate in establishing a system of registration of medical students before they enter college, in order that the requirement of one year of study outside a college may not be mere form.

A correct resume of the medical practice acts in the different States and Territories is a valuable addition to the Report. Comprehensive tables show the progress made towards higher medical education in the past ten years, with the numbers of matriculates and graduates for each year, and the percentage of graduates to matriculates. Those tables show the effect of the schedule of minimum requirements of the Illinois Board after the session of 1882-83. In 1882-83 the total number of medical students in the United States was 12,274, while in 1884-85 it was 10,987; and the 12,000 mark was not reached again until 1887-88. The percentage of graduates to matriculates in the United States has fallen from 35.8 in 1881-82 to 30.1 in 1890. The percentage in Canada has not reached 24 in ten years.

That portion of the Report devoted to institutions and regulations in foreign countries contains in full the requirements of the examining boards in Great Britain, with the names of all the medical schools and of all the hospitals in which instruction is given. The requirements as to preliminary education in foreign countries are given for purposes of comparison, as well as the requirements for graduation and for the license to practice. The course of study and the semesters in which the various subjects should be taken up, as advised in the German universities, as well as a description of the German method of examining for the license to practice, are given in full. In addition, the correct names and locations of foreign medical institutions are given.

All of the above books are for sale by J. H. Chambers & Co., 914 Locust Street, St. Louis.

TOMATOES AND CANCER.—Why or wherefore, it is impossible to say, but in some unaccountable fashion the impression has come largely to prevail among the public that tomatoes are a cause of cancer, and that for this reason the delightful vegetable in question must be eschewed. The only connection that we know of between cancer and tomatoos is that within past years there has been a large augmentation in the death rate from cancer, and an enormous increase in the consumption of tomatoes.—*Medical Press.*

[The real reason for the above statement is that some years ago some myopic investigator claimed that he found in tomato juice a cell that looked like cancer cell. He was fool enough to give it as his opinion that therefore cancer was caused by eating tomatoes.]—*Am. Pract. News.*

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, February 14, 1891, the President, L. Bremer, M.D., in the Chair.

Dr. Bremer said.—I present a tumor of the uterus, which was presented also by Dr. Dalton several meetings since, of an enormous size; it was delivered through the vagina. From a preliminary and partial examination, I pronounced it on the former occasion an angiofibroma, from the fact that it was very rich in vessels; and, in the second place, on account of the great amount of fibrous tissue contained in it; but subsequently having made other sections and examined it more carefully, several peculiarities were found which demonstrated a tumor of no ordinary occurrence, at least I have never seen anything like it. Among other unique features I found a great deal of juvenile tissue, and infiltrated localities that gave it the aspect of malignancy; and yet certain clinical features, especially a powerful capsule, forbade the diagnosis of malignancy. One certain place engaged my attention, the appearances of which approximated very much that of placental tissue. This resemblance, in other places, was still more pronounced and enforced the conclusion that it was a placenta, undergoing a fibroid change. How long this tumor had been retained in the woman's uterus no one can tell—in all probability a great many years after the fœtus was expelled. The report is that this woman was delivered, the last time, ten years ago; probably this is a placenta that belonged to the fœtus that was then expelled; that the placenta was not removed at all, and the woman has carried the placenta during these years in her womb; it afterwards underwent certain changes, assuming a firmer structure, and at length became organized, so that it is hardly recognizable now as a placenta. A fibrous attachment visible must be considered the remnants of the sac. There is a total disappearance of the umbilical cord; whither must be conjecture. (Sections were shown microscopically).

A second tumor was at the same time removed, but this is entirely different, etiologically, from the former. This is a so called fibroma, or more properly a myoma; a fibroma of the uterus is,in all probability, a myth—there are no fibromata, originally, these tumors are probably all myomata, which afterward undergo more or less fibrous changes. In this case it is evident there were two distinct tumors, one placental and the other a myoma.

The speaker also presented two other specimens from typhoid patients, who died at the City Hospital, and said they are both remarkable, from the fact that death took place very suddenly, the dignosis was not made per vitam; they both present the type of typhus ambulatorius. One came from a patient who was stabbed some time ago in the leg. The wound healed very kindly and promptly; the man thought nothing more of it until suddenly he fell sick; he then referred his illness to the locality of the wound and entered the hospital under the impression that he needed attention only, on account of the wound. After remaining a few days fever supervened; and the first time the temperature was taken it registered 106°. He died on the second or third day after admission, a diagnosis not having been made. On examination, the intestines revealed a case of typhoid fever, such as is rarely seen. The typhoid changes in Peyer's patches, and in the solitary patches were not confined to the region of the ileo-cæcal valve, but extended far up into the duodenum, an occurrence very frequently denied; and if the stomach had been examined doubtless the characteristic appearances would have been found in it also. Not only this, they extended beyond the ileo-cæcal valve into the colon, nearly to the rectum, constituting not only an ileo-typhus, but also a colo typhus. A remarkable feature in the case is the enormous size to which the mesentery glands have attained, some of which are as large as a hen's egg. The spleen was only moderately enlarged, yet it is an infectious spleen, being pulpy and soft. Complicated with this condition was a pneumonia, not croupous but rather an interstitial pneumonia. The great question arises, what was the direct, immediate occasion of the man's death? Was it from the typhoid ulcerations? He had but little diarrhœa, no hæmorrhages; the condition of Peyer's patches showed extensive involvement; the temperature was 105°, and he died about the 8th or 9th day after the inception of the disease. The question then is: what killed the man? Typhoid fever patients rarely die early as did this man. The lungs being examined, the same organisms were found in them as those that produced the changes in the intestines; these had set up pneumonia; they were found in great number in the lymph vessels, the spleen, the liver and in the kidney. The latter condition suggests the possibility that the man died of uræmia. Unfortunately the brain was not examined for bacteria. This fact would go to show that the bacteria were so numerous and virulent that a fatal toxine, the poisoning from the typhoid bacilli was generated by them. It has been asserted and demonstrated by Grier and others, that this poison does cause death—it being a medulla oblongata poison—the weakened heart interfering with the respiration. Therefore toxæmia was probably the occasion of his death, the lesions found not being sufficient to account for it.

Still more striking is the second case, which, judging from the appearances of Peyer's patches, and the solitary glands, probably did not date back more than five days. This was also a case of typhus ambulatorius. The man came to the hospital, complaining of chills and fever; and since there was no tenderness of the abdomen, no typhoid stools the temperature was not taken, and it was regarded as a case of malaria, chills and fever. The man died suddenly on the second day after admission. The postmortem revealed an unusual lesion of the so-called medullary swelling of Peyer's patches, thereby distinguishing the case as one also of typhoid fever. In

this case also an enormous number of typhoid bacilli were found in all the organs examined. These factors demonstrated the extreme virulence of the cause which was not localized in the intestine, but in all probability, involved all the organs. There was in this case, as in the other, a toxine, a pneumonia also; and the probability is at once suggested, that the portals of the entrance of the poison are not always the intestines, but may be, among others, the lungs. Pneumonia doubtless was present when the first symptoms of fever manifested themselves. It is not at all rare to have a pneumonia set in in the course of a case of typhoid fever,say in the third or fourth week—a very ugly complication; and in that class of cases, we, as a rule, have a mucous infection—due to the ordinary microbe which produces pneu monia—the pneumococcus. But here there is no pneu mococcus, and the portals of entrance were probably the lungs, there being only a very little localization in the small intestines. A typhoid fever is possible without the characteristic lesions—without their proper localization in the ileum, the main force of the poison being expended upon other organs. Cases of so-called men ingo-typhus occur, in which the brain symptoms predominate from the start; whenever the abdominal symptoms supervene, the brain symptoms pass off as by magic; but under certain circumstances, such cases may terminate in death at this stage; and although the typhus bacillus has not, to my knowledge, been discovered in such cases, I have no doubt that some day there will be found, in the cerebral meninges, typhoid bacilli which kill the patient without localization at the classical site of the typhoid lesion, namely in the ileum, at the ileocæcal valve.

Another point was suggested when I heard that this man had complained from the beginning of the attack of chills and fever. Many wrong diagnoses are made, and even the best will make them; nothing is so difficult of diagnosis as an unusual case of typhoid fever; but we have it now in our power whenever we suspect a typhoid fever to examine the fæces, and thence to obtain the elements of an infallible diagnosis. But in many instances the question of diagnosis is fraught with the greatest of difficulties. The occurrence of an initial chill or a number of chills, as very frequently happens among the prodromata of typhoid fever, before the abdominal symptoms manifest themselves, suggest the presence of some poison circulating in the blood, primarily in the lymphatic system; and that this poison has a power in its effects akin to that of strychnine, because the shaking in a chill is but a minor convulsion—it is a convulsive poison; at the same time it is a poison which acts upon the vaso-motor center—the vaso-motor center is stimulated; in consequence of which there is a general spasm of the arteries and the person feels cold; the blood vessels not being of the proper caliber, a diminished quantity of warm blood courses through the arteries, and cold is experienced.So we have here the excitation of the convulsive center manifested by the shaking, and the vaso constriction due to the stimulation of the vaso motor. The toxine generated by the typhoid bacillus acts as a convulsive poison; and its action becomes manifest in the chills and fever which initiate the attack of typhoid fever. It, therefore, is evident that before any local symptoms are manifested, the poison has already circulated in the blood; and it now depends on where it shall locate, whether in the brain or lungs or intestines or kidneys, since there is also a renotyphus. As a rule, it localizes in the intestines; but there is no doubt that in many cases it localizes somewhere else, and persons die from typhus, without showing the characteristic lesions in the intestines.

Dr. A. Green said he could not endorse some of the statements made by our worthy president. Typhoid fever can not be diagnosed by elements found in the fæces. Why? There are many different species of bacteria that so closely resemble the bacteria of typhoid fever, that it is very difficult to differentiate one from another. Even Koch himself says an expert only can diagnose it from the fæces, and even then it is attended with difficulties. Why? Because the typhoid bacillus is not like the bacillus of tuberculosis, with which an animal can be inoculated and the disease be produced. No animal is susceptible to typhoid fever. Animals inoculated with it die from intoxication in a short time. The Guinea pig inoculated in the jejunum manifests a few signs, but they are not at all like those of typhoid fever; and the bacilli which were found afterward were not like typhoid bacilli. Before necrosis has taken place ths bacilli can be seen lying side by side the cells, not in the cells; no other bacteria are present; but as soon as necrosis takes place, then they cannot be distinguished because other bacteria are present.

The speaker said he could not concur in the statement that these patients died from intoxication, instead of infection. Some cases, slight, even so-called abortive cases, present the bacilli in the spleen. Again, typhoid bacilli *per se* do not kill. When the bacilli have entered, in whatever way, the intestines, of course they usually invade the solitary glands, Peyer's patches, etc. In the first few days more or less hyperæmia is occasioned, with catarrhal secretion; the system is beginning to respond to the specific irritant, but that irritant has not had time to multiply, consequently the response can not be great; but when these bacilli begin to multiply, there ensues a response from an inflammatory infiltration of round cells. In some cases this infiltration of cells, when it has not proceeded too far, is actually terminated by resolution—that is, the cells undergo fatty degeneration; and the detritus is afterward absorbed by the lymph cells; consequently the gland infiltrated, or however changed, recovers its normal state. Then, again, when this is not the case—when the infiltration comes on again and becomes so intense that it compresses the blood vessels, the patient dies of coagulation-necrosis and gangrene. He does not die from intoxication. Some morbific agency must have been at work besides the intoxication; that morbific agency may have been malaria. Malaria will kill. Many physicians

have made mistakes about malaria, as every case does not exhibit all the characteristic symptoms. I do not think intoxication killed these patients.

Dr. Bond.—Will Dr. Bremer indicate by what microscopic appearances he decided that the tumor presented was composed of placental tissue; did he discover placental villi?

Dr. Bremer.—I saw in some of the sections what resembled cotyledons of the placentas in a very striking way.

Dr. Bond.—By many authorities it is believed that these so-called moles, or retained placenta, undergo fibrous degeneration uniformly; and that fatty degeneration is a subsequent process. Some pathological law must preside over reversions or changes. I am not dis posed to believe that all such structures first undergo fibrous, and afterward fatty degeneration, and only from one convincing experience. On one occasion a stout Irish woman being pregnant, the motions of the child were very perceptible and very active; but the motions ceased suddenly and she went for a few days without perceiving the motions of the child. Labor set in and she was delivered of a dead child; the cord was only a few inches long, which condition was perhaps the occasion of the death of the child—I say perhaps, for I don't know; but the placenta was of enormous size, filling a common water-bucket to two-thirds its capacity; the child too was large; the delivery of the placenta was not easily accomplished, in consequence of its exceeding great size and its friability. It had undergone degeneration, but not what is known as hydatiform degeneration, dropsical accumulation of the villi; of this there was no indication. The size and development of the child indicated that it had been alive until within a few days of delivery, and consequently that the placenta had been in an impaired condition for only a very short time; for, if the circulation through the placenta had been materially interfered with, in other words, if this process of fatty degeneration had been going on gradually, then the imperfect development of the child would have furnished an indication of its incompetency. This is a case in which a very vigorous, large child is delivered and the placenta manifests extensive fatty degeneration and the indications are that it assumed this condition in the course of a few days.

In regard to the nature of the tumor presented by Dr. Bremer, its gross appearance suggested that of placental tissue when it was first presented. It is not an uncommon occurrence for placental tissue to be carried for a great length of time; but it is an uncommon occurrence to find placental tissue, after being carried for a long period, in such a state of fibrous degeneration. Now, does fibrous degeneration precede fatty degeneratinn in all instances? In obedience to some clock-work agency, that we do not understand, a woman will sometimes abort, say at the third month, and throw off the embryo while the placenta is retained. No menstruation occurring, the placenta may be carried to the ninth month exactly, and then a process of labor is instituted and a placenta which has undergone fatty degeneration is thrown off. I have on several occasions had this experience. Then, again, I have had cases in which the embryo had perished at the third month, was not discharged but retained, and was carried to the ninth month and then labor was instituted and an ovum with a fatty degenerated placenta was thrown off. It is true that in many instances degenerated placentæ are expelled before the expiration of the ninth month, the period of normal gestation. But the great majority of cases go only to the ninth month, and just what is the parturient mechanism that determines the institution of muscular action at that time; in other words, what the agency is that determines the cerobro-spinal portion of the nervous system, rather than the organic or sensitive portion then to take on expulsive action, is an interesting question for investigation.

Dr. Bremer stated in his concluding remarks. To the assertion that we cannot diagnose a case of typhoid fever from the feces he would protest. The speaker said he could do it and by means of the cultivating process. It is not possible to diagnose the typhoid bacillus from its morphological appearance exclusively, but if the feces of a supposed typhoid fever patient be examined, as has been done, not only dozens of times, but hundreds and thousands of times, it can with the utmost precision and mathematical certainty be demonstrated, that the bacilli found are those of typhoid fever and that they are none other. It is a well-known fact that the typhoid bacillus can be diagnosticated by its behavoir on gelatine plates, and that an expert can decide at a distance of four or five feet, whether he has to deal with typhoid bacilli or some others. The theory of the malarial influence, of course, it is very hard to demonstrate or refute; but people drop dead in this stage of the disease in countries where there is no malaria.

The speaker firmly believed the tumor under consideration to be placental. As to the question of fatty or fibrous degeneration, the degeneration, so called, is in reality not a degeneration, it is a fibroid change. Fatty degeneration is conceivable only on the supposition that there is a deficiency of nutrition. For instance, when the vessels are severed from the body of the matrix there will be impaired nutrition and the result is fatty degeneration and it comes on very early. The case presented was in all probability an adherent placenta, par excellence, in which the connection between the placenta and uterus remained for a very long time, and in all probability this organ grew, and far from being retrogressive in character it made advances and advanced to a higher type of connective tissue, although in reality it was embryonic in character.

Enlarged Tonsils.—In the Jefferson Clinic, Dr. Cohn recommended the use of a new remedy, pyoktanin, for the reduction in size of enlarged tonsils. First, a number of small punctures are made in the tonsil, then the remedy, taken on the end of a small applicator and heated, is applied to the interior of the punctures.

ST. CHARLES COUNTY MEDICAL SOCIETY.

On February 17, 1891, a meeting of this Society was held at the City Hall, in St. Charles, Mo, Dr. Edwards, the President, calling the meeting to order. The minutes of the last meeting were read and approved, and twenty members responded to the roll call.

After electing Dr. Edmund Marheincke, of St. Peters, an honorary member, the meeting adjourned until 2 o'clock P. M.

Upon reconvening, Dr. Bransford Lewis, of St. Louis, read the first paper (which will be published next week) on the programme, entitled:

THE USE OF THE ENDOSCOPE IN THE DIAGNOSIS AND TREATMENT OF AFFECTINNS OF THE URETHRA.

The paper was discussed by Drs. D. O. Hudson, of Mongomery City, S. R. Johnson, O. Morgner and B. Geret, of St. Charles. At the close of the discussion, Dr. Lewis was requested to have his paper appear in the WEEKLY MEDICAL REVIEW, under the caption, "Read before the St. Charles County Medical Society."

DR. H. H. VINKE, of St. Charles, read a paper (see page 161) on

HYDROCEPHALUS,

and showed a little colored boy, who had been treated for this affection six years ago, complete recovery having taken place.

DR. J. H. STUMBERG, of St. Charles, then read an essay on

COMEDONES.

The Doctor ingeniously applied this name to all microbes invading and feeding upon the human economy. He predicted that a revolution in the treatment of infectious diseases would take place in the near future, and was confident that those present would see the day, when tuberculosis would be successfully treated by tuberculine, scarlet fever by scarlatine, etc. The paper proved very interesting and was discussed by Drs. Bransford Lewis, of St. Louis, B. Geret, and J. C. Edwards, of St. Charles; J.T. Evans and J. A. Talley, of Wentzville, and L. M. Currier, of Cottleville.

DR. J. R. MUDD, of St. Charles, in a well-written paper, accurately described a form of diarrhœa, now prevalent in St. Charles. In the treatment of these cases the author recommended the administration of calomel followed by opium, bismuth and quinine. The paper was freely discussed by Drs. H. Talley, of Wentzville; Geo. L. Schwoerer, of O'Fallon; O. Morgner, J. H. Stumberg and C. M. Johnson, of St. Charles.

DR. D. O. HUDSON'S discourse on a

NEW METHOD OF TREATING PARAPHYMOSIS

was listened to with a great deal of interest.

Upon motion, a committee of three composed of J. H. Stumberg, J. R. Mudd and H. H. Vinke, was appointed by the president to draw up a set of resolutions, urging the passage of a bill on medical education, now before the House. The following draft was reported and approved, and signed by every member of the Society:

WHEREAS, Medicine has made such marvelous progress within recent years that we consider a two years' attendance upon lectures, as now required, entirely inadequate for the acquirement of a thorough instruction and training in the different branches of medicine; and

WHEREAS, Surrounding states have judiciously enacted such laws as have for their object the raising of the standard of medical education; and, if similar provisions be not made in this State, will have for their ultimate result, the overflowing of our State with the scum and refuse of the medical profession from those States,

Resolved, That we are emphatically of the opinion that our legislators should take such action as will secure a compulsory attendance of at least three years by every student of medicine at some reputable medical college.

Resolved, That a copy of these resolutions be transmitted to our representatives, with the request that they take such action as will accomplish this end.

Before adjourning, Wentzville was chosen for the next place of meeting, and Drs. Geret, Morgner, C. M. Johnson, Currier and Jno. A. Talley were appointed to read papers on that occasion.

A banquet in the evening fittingly closed one of the most successful sessions in the history of the Society.

SELECTIONS.

SOME NOTES BEARING ON THE ADMINISTRATION OF IRON.

Although iron is highly esteemed as a medicament, and is largely used for its tonic effect upon the system, so frequently does it occur that the patient objects, owing to some idiosyncrasy or fancy, that we cannot regard it wholly as an ideal hæmatinic. No apology, therefore, is required in offering to the profession a comparatively recent preparation, which is free from some of the objections that have been urged against many of the iron preparations now in use. In order to make the reasons which I have to offer clear and distinct to the casual reader, I have deemed it wise to consider briefly some points intimately connected with the pharmacology of the drug. From this preliminary study we shall be in a measure prepared to estimate how nearly the new product comes to meeting the defects with which we have had to contend so long, and at the same time it may possibly lead to a more intelligent use of this well-known remedy.

Besides the reduced iron, we have in general use ferric and ferrous preparations, the latter being more mild, less astringent and free from the objections to the fer-

ric salts—that of coagulating albumen. Lethal doses of the ferric salts used intravenously, in experimental investigations, cause almost immediate paralysis of the central nerve system, fall of blood-pressure and death. Although the perchloride, when thus used, causes instant death by coagulation of the blood, it does not act in this direct manner when introduced subcutaneously; the nerves are unaffected, but at the points of elimination inflammatory action is set up, *e. g.*, the kidneys, liver and intestinal mucous membrane show more or less effect.

Absorption takes place as a peptonate or albuminate, but it is taken up so slowly that no appreciable result follows, unless, as just stated, it may be used intravenously or subcutaneously. Absorption takes place more rapidly in catarrhal conditions of the intestinal tract—a fact to be borne in mind when exhibiting large doses, which cause gastro-intestinal catarrh. Small doses do not have this effect, nor does the metal appear in the urine from their administration, such as may be observed after the ingestion of large doses. It will be inferred from the foregoing that by the exhibition of small doses of a soluble preparation of iron it will be assimilated without causing derangement of the alimentary tract and in this way the secondary effects, *i. e.*, the deposit of the metal in the system, may be avoided.

The fact should be kept constantly in view, that metals have a poisonous action upon the nerve, nerve-centers, muscles and upon all glandular structures; and as iron is a reputed hæmatinic, much harm may result from its injudicious employment, as there are evidently certain toxic effects following the long-continued use of insoluble preparations. This is a rule which applies especially to all insoluble preparations, and it is but reasonable to assume that whatever harm has been done by this means may have escaped attention, because few physicians are likely to investigate the presence of factitious diseases. Another factor which has contributed to lessen these evils, is the slow process of absorption.

The foregoing observations apply with equal force to the effects of the drug upon the circulatory apparatus. While copper is an active agent in causing contraction of the blood-vessels, iron produces slow contractions, showing that it is less irritant (stimulant) to the nervous system. This may possibly be accounted for on the hypothesis that iron is a normal constituent of the blood. Whether this effect is due to irritation (stimulation) of the vaso motor nerves, central or peripheral, or to a direct action upon the muscular walls of the blood-vessels, is a question still in doubt. My own impression is,that through the influence of the medicament upon the nerve-cells the large doses comparatively arrest their function, when contraction of the muscular structures takes place. The ferric salts, owing to their property of coagulating albumen and blood, of course, produce more marked effects than the ferrous salts. Digitalis and ergot among the inorganic remedies, well-known as vascular tonics, furnish apt illustrations of this important principle.

Iron has a tendency to accumulate in the liver; small doses do not show this tendency, but they may serve to increase the functional activity of this organ, when given in a soluble, non-astringent form, by restoring cell-nutrition to the normal.

The effect of iron upon muscular structure has long been known to experimental physiologists, but I doubt if this knowledge is appreciated by many practitioners, who regard the possible benefits to be derived from the exibition of iron preparations in proportion to the amount tolerated by the patient. Now, large doses,while they do not affect the irritability of muscular structure, lessen materially the amount of work it is capable of performing, while small doses increase the capacity of muscles for work. What is most to be desired, therefore, is a preparation not open to the objections inferred from these investigations; but owing to the necessity of consulting the palate of our patients, it is also desirable that the substance should be free from the nauseating effects which are so common to all preparations of iron. The combination, I believe, is to be found in that form known as levulose ferride, which was highly recommended to me several years ago by my friend, Dr. James Collins, of this city.

The preparation known as levulose ferride is one which takes the place of a well-known and popular German product, called *Eisenzucker* (iron sugar), very extensively used in domestic practice. I was led to the employment of iron sugar on account of its palatability, fastidious patients and children making no objections to it; but this has been supplanted by levulose ferride, which in the form of tablet triturates will be taken as readily as chocolate bon bons. It is readily soluble in an excess of water and practically free from any ferruginous taste or styptic effect when dissolved in the mouth and is substantially a peptonate. The method of preparing it is briefly as follows:

To a certain amount of iron a measured quantity of malt sugar (maltose) is added, and the mixture constantly stirred while exposed on a water-bath. While it possesses all the desirable qualities mentioned, the presence of metalic iron may be determined by chemical analysis, the strength of the product being about 3%.

This preparation, it will be apparent, will act much less actively as an astringent than even the ferrous preparations; but, of course, it cannot be expected to take the place of the ferric products, which are sometimes demanded, as in the case of intestinal parasites (sarcina ventriculi and lumbricoides). On the other hand, it will be especially indicated for the relief of anæmia and chlorosis, owing to its ready absorption, lack of astringency and its palatability. In all cases of defective nutrition, from any cause, where the ingestion of any form of medicament is a trial to the patient, this product will be kindly received. A synopsis of some of the cases in which it is indicated, together with a summary of the effects following its employment, may prove interesting to the physician.

During the early summer months, I had under obser-

vation a young mother and a six-months old child, who presented a very anæmic condition. I had seen her but once since the delivery of the child, and anticipating that she would not be able to nourish it sufficiently and maintain her health, I had cautioned her in regard to the most appropriate diet. Notwithstanding every care had been used, she was finally compelled to seek medical aid, or to go to bed. All that this patient required was something for the purpose of increasing the heæmoglobin, which would restore the integrity of the red corpuscles and improve the oxygen-carrying capacity of the blood. This being most readily accomplished by levulose ferride, she was ordered to take tablets of this preparation, each containing three grains, after meals. To meet the emergency and increase the patient's strength until such time as the advantages of the iron would be apparent, small doses of strychnine (one sixtieth grain) were administered along with the iron. Ordinarily, this class of patients, when they begin in the early summer, suffer more or less from the effects of the heat, and become regular patients of the doctor; but this patient did not make her appearance again for about two months, when she said she thought it was about time to have a little more medicine. I may mention, in passing, that the first medicine was sufficient only to cover the first ten days, and the patient seemed greatly disappointed that she was compelled to return.

So many children are so promptly benefited by the use of a small quantity of iron, that it is a great drawback to us that no palatable preparation has been discovered and put on the market. I have in mind a little fellow, who has long been adverse to eating meat, due, I presume, to defective digestion; but for the past few weeks, since he has been taking the levulose ferride, he seems quite content to eat meat alone and is becoming strong and robust. Not long ago I had a visit from a lady, who brought with her a young lad, æt. 14, who had a most forbidding cadaveric expression and he could eat no meat. His brother, I was told, had died at about this age from Bright's disease and this one presented all the symptoms peculiar to the brother who died. Still, with attention to diet, outdoor exercise in the country and a tablet triturate containing three grains of levulose ferride after meals, he made a prompt recovery. Although, I was unable to discover any symptoms of Bright's in this instance, I was impressed with the depression due to the anæmic condition; and yet, without some readily assimilable iron preparation, it would have been a tedious process to start him on the way toward recovery.

Late in the spring of the year, a gentleman, æt. 35, called on me complaining of dyspepsia, although he had been under treatment of another physician for overwork for the preceding four years. After regulating his diet and adopting treatment calculated to restore the activity of the digestive apparatus, he was placed upon levulose ferride along with strychnine sulphate—three grains of the former in tablet form and one-sixtieth grain of the latter, and did remarkably well on this combination. This product, like all other mild preparations of iron, is mostly indicated in cases of this class and along with these may be mentioned chorea, convalesence from lingering diseases, like typhoid fever; and in all such instances, I venture to anticipate that the results will be especially favorable where proper attention is given to dietetic measures.

The administration of the remedy may be confined to the use of the powder which is taken dry on the tongue, dissolved in water or coffee; or it will be found more convenient in the form of a tablet, each containing three or five grains. The dose for children ranges from three to ten grains, and for adults from five to thirty grains

The Levulose Ferride was obtained through Messrs. Eisner & Mendelson Co., of New York, who imported this article.—John Aulde, M.D., in *New. England Medical Monthly*.

THE NATURE AND TREATMENT OF TABES.

Struempell (*Munch. Med. Wochenschr.*, 1890, 39, 667), in an interesting article upon this subject, says that, though there are so many and so varied symptoms of tabes, there are certain of them which seem to be almost invariably present. Such are the three initial symptoms—the evidence of sensory irritation in the skin, legs, arms, trunk or head, the abolition of the patellar reflex, and the characteristic alteration of the pupil. In a later stage are almost constantly seen the development of certain disturbances of sensation, of bladder symptoms, and of ataxia of voluntary motion. To explain these facts we should have to assume, even if we knew nothing of its pathological anatomy, that the disease was one in which certain tracts of fibers in the brain and cord were affected according to some law. The determination of just which fibers is, however, a matter of exceeding difficulty. That the degeneration is nevertheless systemic seems now proven beyond a doubt.

We may define tabes as an exceedingly complicated disorder of the nervous system, in which there are in the peripheral nerves, spinal cord and brain, numerous tracts of fibers diseased with at least partial involvement as well of the ganglion cells from which the fibers arise. The disease always begins as a degenerative atrophy of the nerve-fibers. Its distribution always stands in the closest relations to the physiological property of the fibers. Certain systems always become easily and completely diseased, while others are more rarely or only slightly affected. The order in which the fibers are attacked is by no means always the same, though certain rules seem to obtain. The rapidity, too, with which the disease extends from one system to another is subject to great variations. Its point of starting, too, may be most variable.

As regards the cause of tabes the author denies the

active influence of exposure to cold, excesses, traumatism and heredity. He agrees entirely with Fournier, the first to claim that tabes occurred almost or quite exclusively in those who had at some early period in their lives suffered from syphilis. He has yet to see a case in which the possibility of a preceding syphilitic infection could be positively excluded. It is a mistake, however, to consider tabes as at all a form of tertiary syphilis, due to a syphilitic affection of the vessel; for the anatomical changes are totally different from syphilitic new formations, and antisyphilitic treatment is usually entirely unavailing. The degenerative changes of tabes are to be considered as the result of a post-syphilitic intoxication of the body. Thus it is exactly analogous to the paralyses seen after diphtheria, which are the result of a widespread degeneration of the nerves, which has nothing anatomically in common with the primary diphtheritic changes. The nerve-lesions in diphtheria are simply degenerative conditions due to the action of a chemical poison arising within the body. The origin of tabes the author believes to be similar to this. As in the case of all other toxic degenerations of like nature, there exists an intimate connection between the nature of the poison and the nerve-fibers acted upon; each poison being a poison for only certain regions of nerve-tissue and harmless to others. In this way it can be understood why tabes must be a systemic affection. It is also clear that though mercury and iodine may destroy syphilitic new formations, they need not be at all active against a chemical toxine.

The author believes that the various crises are best accounted for on the ground that they are of toxic origin. In fact, he knows of no other way to explain them with any satisfaction.

In opening his remarks on the therapeutics of tabes, the author refers to several points which he thinks deserve more attention than is usually accorded to them. First, that slight or rudimentary cases of tabes are not of rare occurrence. It is possible that such cases, suffering only from the earliest symptoms, may have all the indications of nerve-irritation disappear, and no further advance be made in the disease.

A second important point is, that there is seen in tabes the sudden failure of certain nerve-functions, which may then gradually recover their previous condition—it may erroneously be supposed, under the influence of therapeutic measures. He believes that these conditions are the result of the sudden inhibitory action of the poison on certain nerve-areas, without there being any actual destruction of them. Recovery takes place just as in cases of severe morphine-narcosis, curare-paralysis, and the like, after the action of the toxic agent has ceased.

The third point of prognostic therapeutic importance is that all circumstances producing over-strain or weakening of the body in general, or particularly of the nervous system, diminish the resisting power of the nerves to the morbific agent; while the reverse is likewise true, that proper hygienic and dietetic measures exert an inhibitory influence upon this agent. The author particularly emphasizes the importance of avoiding all over-exertion in cases which have as yet shown no traces of affection of the gait.

As to the treatment of tabes, it is evident that no great influence can be exerted in any way upon nerve-fibers already atrophied. The treatment by suspension may, in many cases, be followed by temporary symptomatic benefit, but certainly, he believes, never by any permanent good.

The antisyphilitic treatment can be of no avail against the disease as already developed. It may, however, be tried for two reasons. First, it is conceivable that syphilis still exists in the body, and that by the employment of inunctions in early cases of tabes, the development of further changes may be prevented or at least retarded. He confesses that he has not much hope of any such action. A second reason is that a true specific syphilitic affection of the nervous system—as a gumma—may develop, giving rise to symptoms like those of tabes, or that such a growth may be present in addition to the true tabetic changes. Since it is by no means easy to determine this matter positively during life, the energetic and prompt employment of treatment by inunction is highly to be recommended. We have not yet learned the true method of treatment, which is the employment of such methods as will modify or render powerless the chemical processes going on in the diseased body.—*Am. Jour. Med. Sci.*

THE TREATMENT OF LEG ULCERS BY THE ITALIAN AUTOPLASTIC METHOD.

Prof. Paul Berger recently presented before the French Academy of Medicine two patients whom he had cured of leg ulcers, which had resisted every other mode of treatment, by the Italian autoplastic method (*La France Medicale*, October 17, 1890). In one of these patients the ulcer, probably of syphilitic origin, was circular; the retraction of the subcutaneous tissues caused interference with the circulation in the lower third of the leg, and so caused persistent œdema of the foot, trophic alterations in the skin and contractions causing permanent flexion of the toes and immobility of the foot and ankle-joints. Amputation appeared to be the only feasible operation, but after four successive operations, continued for eighteen months, Dr. Berger was able to entirely renew the normal integuments throughout the entire circumference of the leg, and the ulcer was cured by transplantation of four large cutaneous grafts provided with their cellular tissue, and removed from the thigh on the same and on the opposite side and from the leg. The pedicle of these grafts was only divided on the twenty-first day. Trophic troubles of the feet and the affections of the joints were overcome, and the part was then quite restored to its normal condition.

Dr. Berger insists that the object to be fulfilled by

such transplantation of cutaneous grafts was not only to obtain a firm cicatrix, but to provide normal integument with cellular tissue, so as to do away with the adhesion of the scar to the parts below. In this way cicatricial retraction not only of the ulcer, but of the parts below, and its consequences, is obviated and renders possible the excision not only of the ulcer but of the parts upon which it rests. The author claims that neither the transplantation method of Reverdin nor that of Thiersch gives comparable results, but that for the Italian method of grafting to be successful it is necessary that the limb from which the graft be taken be itself healthy, and that the general condition of the patient itself be good. The operation best succeeds in young subjects, but is of little value in true varicose ulcers.

The second patient had incurable ulcers on both legs in the center of an extensive contracted cicatrix from burns. Dr. Berger also cured this case by transplanting a portion or skin from the thigh of the corresponding side, the leg being maintained in forced flexion until adhesion was well established when the pedicle of the graft with the original seat on the thigh was divided; the result was perfectly satisfactory. The author states that the opposite leg will shortly be operated on in the same manner.—*Ther. Gazette.*

Chloralamid as a Hypnotic.—Dr. G. Generisch has prescribed chloralamid in 32 cases, giving 30 grains at night. This dose was generally sufficient to induce sleep within half an hour. A more certain effect and a longer sleep was obtained when 45 or 60 grains were prescribed. He considers chloralamid preferable to other hypnotics, both because it acts more decidedly and because it is less unpleasant to take. It must be remembered that its effect is negative when sleeplessness is due to pain. It is not by any means a dangerous drug, but headache and vomiting may occur after a very large dose. It does not seem to affect the digestion nor the renal functions. The pulse generally becomes softer and more frequent.—*Med. Rec.*

Shortest Line to all Points West.—On February 1 the Burlington Route opened a new line to Deadwood, S. Dak. The morning train leaving St. Louis at 8:25 makes connection at Lincoln for all points in the Black Hills. Through sleepers and coaches are run from Lincoln to Deadwood.

Two solid through trains are run daily via the Burlington Route to Kansas City, St. Joseph, Denver, St. Paul and Minneapolis.

Only one change of cars to the Pacific Coast via Denver or St. Paul. For tickets, rates, pamphlets, maps and further information apply at the office of the company, No. 112 North Fourth street, or Union Depot.

USEFUL FORMULÆ.

The following are taken from the *Medical Bulletin*, which obtains them from the advanced sheets of vol. ii, of Shoemaker's "Practical Treatise on Therapeutics," now in press:

Ergot.—Ergot may be prescribed according to the appended formulæ:

℞ Ergotinæ, - - - - - ʒss.
Cocainæ hydrochloratis, - - gr.v.
Plumbi carbonatis, - - - ʒss.
Ungt. aquæ rosæ, - - - ℥ss.
M. For external use in acne rosacea and in boils.

℞ Ergotinæ, - - - - - ʒj.
Sulphuris sublimati, - - - ʒss.
Mentholi, - - - - gr.v.
Ext. belladonnæ alc., - - - gr.x.
Ungt. zinci oxidi, - - - - ℥ss.
M. Valuable in fissures of the nose, mouth, rectum, and in hæmorrhoids.

℞ Ergotinæ - - - - - gr.v.
Camphoræ, - - - - gr.x.
Ext. opii, - - - - gr.ijss.
Plumbi acetatis, - - - gr.xx.
Ol. theobromæ, - - - - q. s.
M. et ft. suppositoriæ No. 10. Sig.: Insert one in the bowel when necessary for prolapsed rectum, diarrhœa, or for fissure of rectum.

℞ Extracti ergotæ fl.,
Extracti hammamelidis fl., - aa f℥jss.
Glycerini, - - - - - f℥j.
M. Sig.: Apply several times a day for chronic pharyngitis and nasal catarrh.

℞ Olei ergotæ, - - - - f℥iij.
Lanolini, - - - - ℥j.
Ol. verbenæ, - - - - ♏v.
Ol. rosæ, - - - - ♏iij.
M. Sig.: Rub into the scalp well once or twice a day for dandruff. Useful, also, in loss of hair and sycosis.

Ergot is a reliable remedy in the several forms of capillary hæmorrhage and in overcoming the congestion attendant upon and causing the oozing. In hæmoptysis, epistaxis, hæmaturia, bloody discharges from the bowels (melæna), and in uterine hæmorrhage, ergot in ½-drachm doses of the fluid extract, repeated every hour or two, will generally promptly cause cessation of the bleeding. Ergot may be prescribed for hæmorrhages with advantage, combined with geranium and witch-hazel:

℞ Extracti ergotæ fl., - - - f℥jss.
Extracti geranii fl., - - - f℥j.
Extracti hammamelidis fl., - - f℥jss.
M. Sig.: A teaspoonful every half hour or hour until bleeding ceases.

ORIGINAL COMMUNICATIONS.

THE USE OF THE ENDOSCOPE IN THE DIAGNOSIS AND TREATMENT OF AFFECTIONS OF THE URETHRA.

BY BRANSFORD LEWIS, M.D.

Lecturer on Genito-Urinary Diseases at the Missouri Medical College, St. Louis.

Read before the St. Charles County Medical Society, at St. Charles, Mo., Feb. 17, 1891.

Although the endoscope has been in use since the early part of this century, when it was introduced by Bozzini, it has not received from the profession the hearty welcome and universal adoption that many other instruments for diagnosis and treatment have received. At first thought this would seem to indicate that there was something intrinsically wrong with the instrument, which has made it fail to reach the favor of a profession, usually quick to appropriate anything that offers assistance in alleviating the ills of suffering humanity.

But I believe that a second thought will recall to our minds the fact that many another instrument of equal or even greater value is not more esteemed and used by the general profession, and yet whose worth is universally acknowledged and felt. How many general practitioners take advantage of the wide-reaching diagnostic benefits conferred by the ophthalmoscope? How many use the stethoscope? The same reason for their limited adoption applies to all; it is simply that they are instruments whose use is relegated to specialists because the general practitioner does not have the time, or at least does not devote the time necessary for learning their use. It is not that he can not, but he *does* not use them.

The endoscope, as now most generally employed, is a model of simplicity—a tube and an obturator; that is the apparatus which lays the depths of the urethra as plainly before our searching eyes as when we look at the cervix uteri, or the drum membrane through appropriate specula; and places within our therapeutic reach the prostatic, membranous and bulbous parts of the urethra, for direct topical applications with as much certitude and as complete a control as when we apply an ointment to an ulcer of the leg, or an antiseptic dressing to a wound.

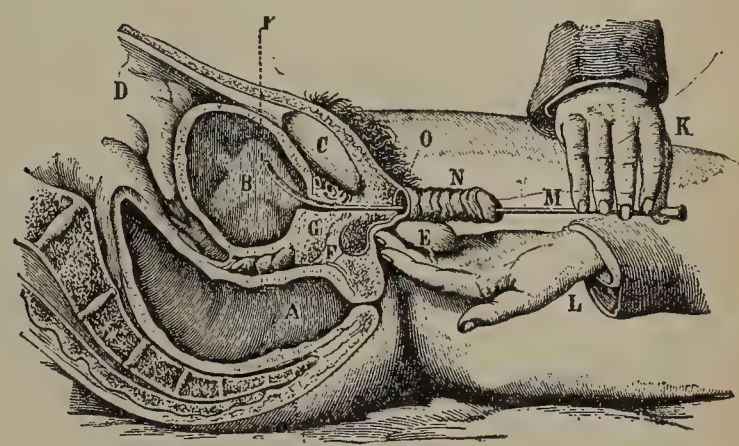
As you notice, this endoscope is simply a straight tube with a polished nickel surface to render introduction easy. It is four inches long, caliber 25 (French). Any caliber may be obtained, but I find this to be most convenient.

Although the instrument is without any curve, and is only four inches in length, it is easily capable of passing through the various curves of the canal and reaching to the bladder, a depth, by anatomical measurement, of eight or nine inches from the meatus; and this, too, when carefully introduced, without suffering on the part of the patient. I frequently use it in this way without evoking a whit more complaint than would be caused by the passage of an ordinary sound.

In the first place, this short-length tube easily reaches the distance of nine inches, because of the compressibility of the greater part of the urethra. The six or seven inches of the penile portion is capable of being crushed up on itself—telescoped, so to speak—until it is only about two inches long; and the perineal or fixed portion, is usually not greater than about two and one-half or three inches. So that a longer instrument than four inches is hardly necessary.

The advantage of the short tube is, of course, the almost inestimable one, that the parts to be studied and treated are brought so much nearer to the eye.

Now it may be thought that the *straightness* of the tube will give rise to difficulty in threading this sinuous canal; that it cannot adapt itself to the curves of the urethra. Well, it *doesn't*; but in entering, it makes the urethra adapt *it*self to the straightness of the instrument, and by the time the latter has reached the bladder, the usually doubly-curved urethra is as straight as the endoscope. The only part of the urethra that has a fixed curve is the posterior portion, and this curve is not so great that it may not be readily straightened out.



In the accompanying figure, taken from a paper by Dr. Otis K. Newell, on "A New Principle in the Surgery of the Bladder," this straightening of the canal may be observed under circumstances that do not shock our sensibilities so much; that is, it depicts the condition brought about by the introduction of the ordinary curved sound. You see the curved part is entirely within the bladder, and the urethra is as straight as when it contains the endoscope.

The curved end is only serviceable in facilitating the introduction of the instrument; after it is once in, there is no further object for it to fulfill. Now if we can dispense with this curve and still get our instrument in without causing pain or doing damage, we have lost nothing that was essential, and at the same time we have gained something that is essential for endoscopic purposes. This facility of introduction of the straight tube, I claim as a fact easily demonstrated by practice. If

there is acute sensitiveness of the urethra, objection will be made to the introduction of a curved instrument as well as a straight one; and the objection to the use of the one, as well as the other, is done away with by the use of cocaine.

The manner of introducing the straight instrument varies but little from that for the curved. Simply push it in until the inner end penetrates the triangular ligament; then, as the instrument progresses, bring the outer end gradually downward, at the same time making the inner end hug the roof of the urethra tightly in order that it may keep in the axis of the ascending curve in this neighborhood. When it has entered to the desired depth, the obturator, that has served to protect the mucous membrane from injury by the rather sharp edge of the endoscope, is withdrawn, the light is thrown in, the field is mopped dry with absorbent cotton, viewed and treated at leisure.

Now as to the need of going to the trouble of introducing and treating through an instrument of this kind, instead of making use of the time-honored syringe, or of the more modern devices, the deep urethral syringe, antrophor, the gelatin bougie, etc. To better illustrate, I will recall to your minds a few points with regard to the anatomy of the urethra. As you remember, the canal is divided anatomically and physiologically into the anterior and posterior portions; this division being made by the compressor urethræ, or "cut-off" muscle, which lies just back of the bulb.

This muscle is one of the sphincters of the bladder. Except when voluntarily relaxed for urination, it remains constantly closed, preventing either the passage of urine from the bladder, or the entrance of fluid from without. It is on account of this muscle that we cannot, without using an undue amount of force, causing pain to the patient, inject fluid into the bladder after simply introducing the nozzle of a syringe into the meatus urethræ. The fluid flows in very easily until it reaches the muscle, when it is stopped short, unless an excessive and injurious amount of force is used. Consequently, for the treatment of this posterior portion we must acknowledge that the use of the old-time syringe will not help us; we must use some means that will enable us to get behind that muscle, and, in getting behind it, do no damage to the tissues. I may say, parenthetically, that *chronic* ailments of the urethra, in which this paper is especially interested, are not uncommon in this posterior portion, so that the necessity of reaching this part is obvious.

I shall not take up much time in explaining why I generally prefer the endoscope to other devices used for making a diagnosis of chronic urethral affections. The advantages of positive ocular demonstration of the disease, which the endoscope offers, are overwhelming. We look at the affection, and *see* its character, its intensity, its conformity, its extent—all about it. There is no room left for ambiguity or uncertainty. It is like opening the belly and making a diagnosis of an abdominal affection in that way, after having speculated on the probabilities of this and that for weeks or months.

So much in favor of the instrument from a diagnostic point of view. When we treat the urethra by means of a syringe, antrophor, irrigator or medicated bougie or sound, we are not confining our treatment *only* to the part or patch affected, but we are medicating, cauterizing or stimulating, as the case may be, mucous membrane that is healthy and we are running the risk of bringing *that* into a pathological state. Such means do not admit of limiting their effects to the diseased area. But with the endoscope we are able not only to diagnose intelligently and postively, but we are able to treat intelligently, limiting our medication absolutely to the affected patch, tubercle, polypus or whatnot.

Urethral inflammation in its early and acute stages has this peculiarity—an inclination to diffuse itself over the membrane; while chronic inflammation has the opposite peculiarity—an inclination to limit itself in patches. For example, acute gonorrhœal inflammation spreads over the entire anterior urethral mucous membrane, eroding and destroying its epithelial layer. With convalescence this epithelial layer is regenerated and again lines the membrane. If the conditions are not propitious, the epithelial layer is not regenerated entirely and recovery is not complete; patches of uncovered membrane are left, maintaining an unhealthy condition and keeping up a discharge of muco-purulent material —the condition commonly called gleet. If the patches are confined to the anterior urethra, such a secretion usually shows at the meatus as a discharge, and is recognized as a gleet by both patient and physician; if they are in the posterior urethra, the cut off muscle prevents the discharge from going forward to the meatus and the inflammation may go on smouldering away, causing various obscure effects, such as frequency of urination, painful and hyperæsthetic sensations about the bladder and prostate, frequent seminal emissions, reflex nervous troubles, etc., that convince the patient that he is not yet well, but fail to enlighten him, or perhaps his medical attendant also, as to the real nature of the difficulty. Such a patient may be considered a hypochondriac, or a neurasthenic. No discharge, no gleet; no gleet, no disease—is a conclusion wholly untenable if the endoscope be brought into play under such circumstances.

By means of a cotton-tipped probe we apply nitrate of silver solution, which causes a rapid reproduction of the epithelial layer and prompt recovery. And we can conscientiously feel that we have diagnosed and treated the case in a rational, intelligent and legitimate manner, and have not wasted time on shot-gun injections which have the sole recommendation that they have cured other cases of urethral inflammation—a very delusive recommendation, to say the least.

The method of using the endoscope is not complicated. Have the patient half-reclining in the surgical chair, with a bright light at his side. Introduce the instrument, withdraw the obturator; look through your

head-mirror, which reflects the light into the endoscope. Mop away any secretion or blood which may present, so that you can get a still better view. By gradually withdrawing the tube, mopping from time to time, you can examine the membrane of the entire urethra; and after making such an examination, you can likewise treat any part of it.

It is a well recognized fact, that although the urethra cannot stand the application of strong nitrate of silver solutions when injected in quantity, as for instance with the ordinary syringe, by the endoscopic method, by which the fluid is confined to limited areas, solutions as strong as sixty grains to the ounce are used without damage, or an excessive amount of pain. I feel vastly more safe in using strong solutions by this method than I do in using much weaker ones with the deep urethral syringe.

If much pain is anticipated or complained of, it is easy enough to quiet it with preliminary cocainization.

For applicators I have made use of copper wires about six inches long, roughened at both ends, to hold the cotton the better.

I usually begin with nitrate solution of only moderate strength, say from five to ten grains to the ounce, gradually increasing, according to the case at hand.

The treatments are administered about two, or possibly three, times a week.

If it is intended to go as far back as the prostatic portion, it is well to have the patient pass water beforehand to prevent any flooding of the operator through the endoscopic tube.

The larger the endoscope used, the better the view obtained.

1006 Olive St.

SURGERY.

ANTISEPTIC DRESSINGS.

BY F. REDER, M.D., HANNIBAL, MO.

Since we are now living in the age of Anti-a-Septicism, with the eminent Lister as its Creator, let us endeavor to live up to the practice as closely as practicable.

It was but shortly that there appeared in one of the foremost journals of our country a sentence by a surgeon whose name is as familiar to the profession as the name of a bright scholar is to his class. "The antiseptic treatment of wounds, as now almost universally practiced, constitutes the greatest triumph of modern surgery." This sentence contains a word that might have been omitted. That word is the adverb "almost," and sorry to say, it is in its place.

A surgeon who has put Anti-a-Septicism down as one of his axioms, and who has the opportunity to meet and come in contact with the surgical cases of colleagues from far and near, can not fail to discover that a great many cases are either partially or totally deprived of any antiseptic treatment. Why should this be? With all the literature, reading every work of the country, at our disposal, it certainly can not be because some of us do not know or have not heard about the antiseptic treatment of wounds! Or can it be possible that some members of the profession have not yet been fully convinced of the virtues of such a treutment? At the present day, such an excuse, is no excuse.

Anti-a septicism means nothing more than thorough cleanliness.

It is true that its practice levies upon the surgeon a little more time and a little more expense, but that only in the preparation of the accessaries necessary to the practicing of the art.

And what is that to a man who is in love with his profession?

Any physician who accepts the responsibility to treat a wound, no matter how trivial the wound may be, should pay the greatest respect to this wound relative to antiseptics, and if he does not, then let the wound be placed in the hands of one that does.

Let us for instance, consider the contents of a surgical bag as it should be for a general practitioner, either in a city or in the country.

The bag is of leather, preferably so, and of the 15 inch size. Such a size will not be too small or too large. As for the lining, rubber cloth, with as few seams as possible is desirable. Such a lining will permit of frequent spongings with a corrosive sublimate solution, 1:1000, and thus keep the inside of the bag more or less in an antiseptic condition.

This bag is to contain the dressings and instruments necessary in every-day practice, and is to afford all the conveniences necessary to a physician, who takes pride in performing his work with neatness and dispatch.

The material that we will select for wound dressings will be gauze, in the trade called cheese cloth. It is to be the bleached quality on account of appearance.

Gauze is unquestionably the most convenient material for wound dressings. It is cheap, can be bought everywhere, makes a neat dressing, absorbs well, is soft and pliable, and can be easily prepared for use by every practitioner.

Of such gauze let us purchase for example, 30 yards. The first step to be taken with this cloth is to subject it to a thorough boiling for about two hours. Having been boiled it is placed into a covered jar containing a 5% solution of carbolic acid. In this solution the gauze is allowed to remain for twelve hours, whence it is taken out and hung upon a line that has been treated similarly like the gauze, to dry.

In the country, this can be done out doors on a favorable day when the air is more or less free from particles of dust; but in a city, a room should be selected that can remain closed and undisturbed for the time it takes the gauze to dry.

This process gives us a reliable carbolized gauze.

In like manner the sublimate gauze is prepared.

After the cloth has been boiled, it is immersed into a covered jar containing a solution of sufficient quantity with the following ingredients:

Corrosive sublimate, - -	parts,	1.
Sod. chloride, - - -	"	50.
Glycerine, - - - -	"	200.
Water, - - - -	"	1000.

(The above quantity is calculated to impregnate one pound of gauze.)

Twelve hours will suffice to give the gauze a thorough impregnation. It is then removed and hung up to dry.

The iodoform gauze we will also prepare ourselves. It is the most expensive gauze of all, but then the quantity used is but trifling in comparison to either the carbolized or sublimate gauze required.

Of the 30 yards of gauze that have been boiled, let us take 5 yards and place them in a covered jar containing a solution of the following ingredients:

Glycerine, - - - -	parts,	20.
Iodoform, - - -	"	50.
Ether, - - - -	"	250.
Alcohol, - - -	"	750.

(The above quantity is calculated to impregnate one pound of gauze.)

It is not necessary to allow the gauze to remain in this solution any length of time. A thorough saturation will be sufficient. The gauze is then hung up to dry. When dry it is placed in a wide-mouthed bottle and well corked.

It is quite necessary to subject the bottle and cork to a thorough boiling before the gauze is placed therein, so as to make certain that the bottle and cork are not infected. Right here it would be well to say that the person that prepared the dressings should pay close attention to the fact that his hands should be washed, and then rinsed in a 1:2000 corrosive sublimate solution before touching any of the material.

Another mode of preparing iodoform gauze, which is not so satisfactory as the process just described, but less expensive, is by taking the boiled gauze, ringing it out well, and then with the aid of a pepper box, sprinkle iodoform upon the moist gauze, rubbing it well into the meshes by hand.

These three varieties of gauze are the principle ones, and will answer all purposes for the successful treatment of wounds.

The gauze now being dry we will proceed to prepare the dressings. A table having been covered with an oil cloth that has been well scrubbed and thoroughly cleaned with a 1:1000 cor. sublimate solution, the material will be placed threon. For roller bandages, both carbolized and sublimate a 6-yards length and a 1 and 2 inches width will be allowed. For conpresses, pieces 4 inches square, these can be easily cut up to suit each individual case; and for iodoform conpresses, only to be used next to and about the wound, pieces 2 inches by 4 inches, these too can be adapted to any case. Having conpleted the preparation of the gauzes and dressings, we feel that a goodly part of the bag's contents is finished.

Another material very essential to an antiseptic dressing in private practice, is absorbent cotton. Of the many varieties one will answer the purpose very well. Let us select the ½% corrosive sublimate cotton. It answers a safer purpose for general use. Every surgical shop can furnish the necessary quantity desired.

That all such material may be carried conveniently, removed easily and handily from the bag, it would be advisable to have a pouch like bag made from light rubber cloth; so that it can be sterilized by placing it in boiling water. This pouch is to be divided into 4 compartment by pieces of rubber cloth properly sewed to the inner surface. These 4 compartments are to contain separately: the bandages—carbolized and sublimate gauze—iodoform gauze—and the absorbent cotton.

A string at the top will allow the pouch to be drawn together so that the dressings need not come in contact with any of the other contents of the bag. Then again when the dressings are to be used, the bag can be spread apart, giving convenient access to any of the material desired.

Next let us dwell upon the ligatures and sutures. Of these, cat-gut and silk are most apt to be called into use in general practice. Of the two, silk should have the preference. However it is well to have both.

The antisepticizing of cat-gut is best done by immersing it in the oil obtained from the juniper berry for 24 hours, and then transferring into absolute alcohol, wherein it is kept till used. Alcohol keeps cat gut hard, strong and flexible, stiffening it but very little; whereas a carbolic or sublimate lotion will make it brittle and weak. It is desirable to wind the cat-gut, a No. 1 size answering for all ordinary porposes, upon a glass bobbin. Such bobbins can be obtained at any instrument shop.

As for silk, this material is to be boiled in a 5% solution of carbolic acid and then preserved in alcohol. These different sizes of silk, Nos. 8, 9, and 10, will generally meet all requirments. Like cat-gut, the silk should also be wound upon bobbins. This material is to be kept in separate bottles. Having placed the ligatures and sutures in an aseptic state, let us proceed to give some attention to the sponges. The practice to use sponges in connection with wounds is not to be encouraged, unless the utmost care is taken in their preparation, and that means a consumption of considerable time.

A sponge is in a proper condition when it has been subjected to a rather lengthy process of cleansing. Having been washed thoroughly with soap and water to dislodge calcarous particles and dirt, the sponge is immersed for 15 minutes in dilute hydrochloric acid to dissolve any of the lime salts that may be lodged about its folds. After that it is placed in a potash-soap water bath for 24 hours. Taken from that it is rinsed and then submerged in a 5% solution of carbolic acid, in which it remains until required for use.

Some 6 small sponges in a 5% solution of carbolic acid are convenietly carried in a small wide monthed bottle, and should constitute a part of the outfit. When to be used, sponges are placed in a 3% solution of carbolic acid.

From the sponges our attention will be called to the drainage-tubes. As drainage-tubes command an important position in the treatment of some wounds, it is quite necessary that they should be treated accordingly. Having purchased one yard of black rubber tubing, the size of about a medium large goose quill, we will proceed to perforate the tube, rotating it so that the holes will be upon a spiral line. After the tube has been properly perforated, it is cut into pieces, four inches in length. The pieces are then boiled for about two hours and then placed in a 5% carbolic acid solution, where they are kept till used.

Such a drainage-tube may also answer the purpose of an elastic liagature. A wide-mouthed bottle, long enough to allow the tubes to occupy an upright position, filled with a 5% solution of carbolic acid, and holding from six to eight tubes, will be carried in the bag.

In conclusion to the material for dressings, we will also add to our bag some splint material, and will favor the medium stiff brown pasteboard. Of this pasteboard, one-half dozen pieces, six inches by twelve inches, will answer all wants. These pasteboards are antisepticized by immersing them in a 1:1000 corrosive sublimate solution till they soften, and are then allowed to dry.

The preference for pasteboard is expressed because it is the simplest way of making a suitable splint, of course for an adapted case. Such a splint should always be torn into shape, not cut, because the edges, when torn, are soft and thin, while when cut, they are abrupt and hard and may cause pain.

We will now consider the instruments, including the needles, that are requisite for the bag.

The instruments necessary for the general practitioner, both in the city and country, do not embrace a great variety. With a dozen instruments at his disposal, he can generally get along very well, and meet nearly, if not all, the requirements. To be sure, it is very well to have a fully equipped amputating case stored away in your office, but I return to say that almost every time you are called upon to use this case, it will be necessary to dust the lid.

The following instruments—one scalpel, bellied, one scalpel, sharp-pointed; one Volkman spoon, small size; one pair scissors, flat; one pair scissors, curved; one director; one hæmostatic forceps; one artery and needle forceps improved; one probe, silver; one thumb forceps; two retractors, small size (knives, spoons and retractors to be provided with metal handles)—having been sterilized by being placed in boiling water, can be conveniently placed and kept in a wide-mouthed bottle, about seven inches high, and about two and a half inches in width, filled with glycerine. The points and edges of the knives are to be protected by small pieces of cork. The instruments being constantly submerged will prevent rusting.

When called into use they are placed in a 3% solution of carbolic acid during the operation. When no longer needed, they are cleaned and replaced in the glycerine. The surgical needles are treated precisely like the instruments, and an assortment of strong and medium curved and straight needles are kept in a wide-mouthed bottle, filled with glycerine.

It would be wise to add three silver tracheotomy canulas of different sizes to the instruments. Also a stout pair of scissors for cutting dressings.

Other necessaries that should be included are:

A two-ounce bottle, provided with a glass stopper, of an alcoholic solution of corrosive sublimate, 1:10.

Sixty drops of this solution added to one quart of hot water will make about a 1:1500 solution.

A three-ounce bottle, provided with a glass stopper, of carbolic acid.

One-half ounce of carbolic acid added to a quart of hot water will make a solution of the strength of about 3%.

A bottle, containing about two drachms of iodoform.

To dust iodoform upon a wound surface can be admirably done with a medium-sized camel's hair brush. The brush is dipped into the powder, then placed near the wound, and by gently tapping upon the quill with the index finger, the iodoform will be dusted over a large area.

Two basins, granite ware, about the size of four inches by eight inches, are required for the necessary antiseptic lotions.

One dozen safety pins, treated and preserved like the surgical needles, should also be added.

A piece of rubber sheeting, two feet square, antiseptized by immersing it in a 5% solution of carbolic acid, is desirable for the protection of the field of operation.

A small-sized fountain syringe is very frequently called into requisition; it is to be included. And now, to complete the list, I will mention the nail-brush, a very useful article and valuable acquisition.

In carefully observing and obeying these modes of preparing and preserving antiseptic dressings mentioned in this article, a surgeon, when called upon to treat a wound need not entertain any fears that the wound, should he fail to bring about its restoration without suppuration, was unfavorably influenced by the dressing.

Schorse & Co., of Milwaukee, Wis., prepare Prof. Senn's decalcified "Bone Plates," together with the "Bone Chips" directly under the supervision of Prof. Senn himself. There are two plates in each set which, after having been accurately threaded for ready use, are put up carefully in a sublimate solution and hence remain aseptic indefinately,

TRANSLATION.

SURGERY.

SONNENBURG'S VIEWS ON THE SURGERY OF APPENDICITIS.

Abstracted for the REVIEW from the "Deutch. Med. Woch."

At a recent meeting of the Free Sooiety of Berlin Surgeons, Mr. Sonnenburg reported two cases of early extirpation of the appendix vermiformis. The discussion was participated in by V. Bergmann, Kuster, Langenbuch, Rosa, Israel, Guterbock and Schlange, which covered the ground in this new field of surgery almost thoroughly.

The following were the closing remarks of Prof. Sonnenberg which embraces the gist of the discussion. Mr. Sonnenberg said he agrees with the former speakers in the opinion that a great many different pathological conditions and processes are taken together under the head of perityphlitis. He agreed fully with Israel that it would be bad practice to recommend operative interference in all cases of perityphlitis. The very extensive sero-fibrinous exudations around the cæcum and the colon should not be made the object of surgical interference. But the exudations which are caused by a perforation of the appendix he believes to be purulent in every inrtance and these should be operated upon.

He would not attempt to search for a deep abscess in the region of the cæcum by opening the peritoneal cavity. Nor would he recommend the removal of the appendix vermiformis in every case for the simple reason that it would be impossible. In the two cases reported by him the relations were such that immediately after the abdominal incision the gangrenous appendix appeared adherent to its surroundings and could be easily removed. Every surgeon would have acted as he did. Unfortunately these favorable cases are rare.

The operation *en duex temps*, recommended by him, does not contemplate making a prophylactic operation in every case of appendicitis. On the contrary the cases must be very carefully selected and only carefully diagnosticated cases of this class thus operated. In more than twenty cases operated upon by him only seven were treated *en duex temps*.

He expressed the wish thal Mr. Israel would adopt the operation in a suitable case exactly after his (Mr. Sonnenburg's) directions when his theoretical objections would soon vanish. Experience has taught and the results of his cases proved that in this method *en duex temps* we have a means of procedure of early and safely evacuating deep abscesses without opening the general abdominal cavity.

PYOKTANIN STAINS, says Merck's *Bulletin*, are readily removed from the operator's hands by washing with spirits saponatus, or with a 10% solution of castile soap in alcohol, or with liquor sodæ chloratæ. Pyoktanin pencils, when broken, are mended by simply wetting the severed surfaces with water and pressing them together gently; when dry they will cohere.—*Boston Med. and Surg. Jour.*

WEEKLY MEDICAL REVIEW.

TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this REVIEW, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the ST. LOUIS WEEKLY MEDICAL REVIEW, 520 Olive Street.

All letters containing business communications or refering to the publication, subscription, or advertising department of this REVIEW, should be addressed to THE MEDICAL REVIEW ASSOCIATION, 914 Locust Street, St. Louis.

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SATURDAY, MARCH 7, 1891.

PROSPECTUS.

In accepting the editorial management of the St. Louis WEEKLY MEDICAL REVIEW, both custom and propriety demand a declaration of the general principles and policy by which its publication shall be governed.

We, therefore, first declare our unequivocal adherence in faith and practice to the provision of the Code of Ethics adopted by the American Medical Association.

Recognizing the fact that from the medical profession chiefly we must derive our patronage, and that what will contribute to their interests will also enure to our own, these we shall seek to promote by furnishing to them a journal, replete with valuable medical and surgical literature, and in a manner that shall receive general commendation.

Having no official connection with medical schools, we are free from all entangling alliances with, or obligations to, any; and desire with generous impartiality to combine our efforts with all in promoting the interests of medical education.

We shall present original articles in every department of medicine and surgery, volunteered by or sought from the ambitious and zealous practitioner; excerpts or abstracts from those of particular value, appearing in journals at home and abroad; proceedings of medical societies in whole or in part, reports of clinical lectures delivered at the several hospitals of this city, local and general medical news, that the pages of the REVIEW may reflect the most recent and the best medical thought and work of the time.

We invite from the profession at large, papers illustrative of original investigation, or narrative of cases, corroborative of the most advanced views on medical subjects.

Also contributions from medical officers, resident at mineral springs or health resorts, or from proprietors of the same, presenting the peculiar excellence of each locality.

We shall give early publicity to all new valuable remedial appliances or agents, added by invention to the domain of surgery, or by chemistry to that of general medicine.

Reviews of medical and surgical works received, we design to make a special feature of the REVIEW, giving to them prompt, careful and ample consideration, and in such manner that for those possessing superior merit signal profit shall accrue to both publisher and author.

Since to all medical and scientific journals, advertising pages are, by common consent, a legitimate accompaniment, we (within the scope of our official duties) are confident we shall best subserve the interests of advertisers, by exercising an impartial discrimination respecting their claims, so far as will comport with our views of the dignity of the REVIEW, and that high standard to which it aspires.

With this brief declaration in outline, of our creed, views and purposes, we solicit the hearty co-operation and liberal patronage of the medical profession.

G. W. BROOME, M.D.

OUR RETIRING EDITOR.

Succeeding Dr. Bransford Lewis to the editorial chair, we trust with its responsibilities will also descend upon us his mantle of success. Though his official relations to the REVIEW are thus severed, and he is allowed the opportunity of spending for professional purposes several months in Europe, we are happy to announce to our patrons that he will become a regular correspondent of the journal, and we shall, therefore, be able to present to our readers the latest developments of medical science in the great medical centers of Europe.

Dr. Lewis is cordially commended to the gentlemanly consideration and kindly offices of all whose instructions or influence he may solicit.

REMOVAL OF THE EDITORIAL OFFICE OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION FROM CHICAGO TO WASHINGTON.

This is now the great question engrossing the consideration of the mass of the profession, on which a few have very decided opinions and preferences.

To our mind no valid reasons have yet been assigned to justify the proposed change. It seems to us, as also to others who have, in the pages of the "journal," expressed themselves, that an ego is the prime motive that has instigated the suggestion. This entity, as yet, has not attained a portentious magnitude. If it can be conscientiously shown that the highest interests of the *Journal* demand the removal of the office of publication to Washington, then record our vote in the affirmative; if, on the other hand, the "Dark Horse" is laying the lines and manipulatiug the combined machinery of influence, journalistic and personal, for the accomplishment of personal ends, then we enter our unqualified protest. In any event, it is prudent to observe well the "direction of the winds."

At a late meeting of the Board of Trustees, November 13, 1890, a resolution was passed, "That the sense of the committee be that the home of the *Journal of the Association* shall be permanently at Washington, D. C.

"Dr. Shoemaker offered the following resolution, which was adopted: *Resolved*, That the trustees recommend the members of the Association and the various State and local medical societies in affiliation with the Association to contribute funds or subscribe for the erection of a permanent building, as a place of meeting, as well as a library and office for the American Medical Association."

It seems to us that Dr. Shoemaker "is a little too previous." It is predicated upon conditions and factors not yet consummated. The assumption is that the place of publication will be changed, that Washington will be the place determined upon, that the meetings of the Association will be uniformly held there, and that ample funds will be furnished for the magnificent accomplishment of this magnificent scheme.

Dr. Hooper, most wisely, and in a generous spirit of consideration of the preferences of the members, desired the decision of "removal" to be referred to the will of the members, the source of all authority. Dr. Shoemaker, and the few in accord with him, are sublimely

oblivious to the fact, acknowledged by some, that there is a West, and that it is entitled to a voice in this legislation. It is a notable fact that at the annual meetings of the Association the profession at the East is conspicuous by its absence.

A communication by Dr. Wm. G. Eggleston, of Springfield, Ill., to the *Journal* of February 21, embodies arguments for its retention at the West that cannot be refuted or successfully met by any representation in favor of Washington. It is especially commended to the careful consideration of subscribers.

A vast commercial center is a much more desirable home for the *Journal* than a locality like Washington, where its citizens are made up largely of persons not engaged in any of the active pursuits of life, save political.

MEDICAL ITEMS.

The Anti-Smoking Law which was enacted by the Legislature of New York went into effect September 1, 1890. "No child actually or apparently under 16 years of age shall smoke, or in any way use any cigar, cigarette or tobacco in any form whatsoever, in any public street, place or resort. A violation of this provision shall be a misdemeanor and shall be punished by a fine not exceeding $10 and not less than $2 for each offence." It will be noticed that boys not only actually but also "apparently" under 16 are liable to arrest. The enforcement of the law is yet to be seen.—*The Sanitarium.*

Acetate of Ammonium in Scarlet Fever.—Vidal cites a number of observations which demonstrate the efficiency of acetate of ammonium in large doses in the treatment of scarlatina. He states that this drug is readily tolerated in the dose of 1 gramme for each year of the age, and that 35 grammes may be administered to the adult. He believes that the drug rapidly lowers temperature, and is a valuable means of treating scarlet fever, and perhaps others of the exanthemata. Its action is more rapid, as he has been able to administer it nearer the beginning of the disease.—*Annals of Gyn. and Ped.*

An Anecdote of Sir Astley Cooper.—Before Astley Cooper was 40, he had a practice in value rising $75,000 a year; indeed, his books show one year's fees collected, $105,000. In 1820, at the height of his success, he was called in to remove a steatomatous tumor from George IV's scalp. On the day appointed, he waited upon his Majesty. Lord Liverpool and other cabinet officers occupied a room adjoining that in which the King was. In preparing for the operation Cooper was observed to be pale and nervous, when Lord Liverpool, taking hold of his hand, said: "You ought to recollect that this operation either makes or ruins you. Courage, Cooper." This timely rebuke so impressed him that every trace of anxiety vanished, and he performed the operation with his wonted dexterity. This won his baronetcy with remainder to his nephew who succeeded to the title.—*Western Dental Journal.*

Hospital for Vienna Students.—A hospital for sick students of all nationalities was recently opened at Vienna by the Emperor. Professor Schotter delivered an address, in the name of the Society for the Care of Sick Students, in which he expressed the satisfaction felt by the Society in having at last, after thirty years of work, a home of its own for the reception of students overtaken by illness. The hospital has accommodation for thirty-seven patients, eight beds being set apart for surgical cases and nine, in a separate block, for infectious cases. Dr. Redtenfacher will have charge of the medical and Professor von Dittel of the surgical section; dermatological cases will be under the care of Professor Lang.—*Bost. Med. and Surg. Jour.*

Treatment of Chorea by Salicylate of Sodium.—Dresch considers chorea as a microbic infectious disease; and, working from this idea, he has treated the affection for the past six years with salicylate of sodium, which in his hands he asserts has given better results than the classic treatment. The salicylate produces sedation by acting upon the gray central matter of the bulb and medulla. It calms choreic movements in the same way as it quiets the pains of rheumatism; moreover. from its soluble properties, it has the advantage of eliminating organic waste-products, and of preventing the auto-intoxication which they can engender. It is necessary to employ it from the appearance of the first symptoms, and to give it in fractional doses in a slightly alkaline solution for a period of eight to ten days. He completes the treatment in the following way: During the first period, enforced rest in bed, in an airy chamber of mean temperature, darkened and free from noise, the diet consisting of milk and bouillon; in the beginning, free purgation with calomel; later, lavements of warm solution of borate of soda. At the end of ten to fifteen days, if there has been an amelioration in the symptoms, he returns to the usual diet; light, noise and movement can now be tolerated. Baths in tepid water, hydro-therapeutics and appropriate gymnastic exercises complete the cure.—*Annals. of Gyn. and Ped.*

BOOKS AND PAMPHLETS RECEIVED.

Biennial Message of Joseph W. Fifer, Governor of Illinois, to the 37th General Assemby, January 8, 1891.

Some Fallacies Concerning Syphilis. By E. L. Keyes, M.D., Consulting Surgeon to Bellevue, Charity, St. Elizabeth's and Skin and Cancer Hospitals, New York. 1890. Physicians' Library Series.

A Death Caused by a Uterine Dilator, with Some

Remarks as to the Proper Method of Using the Dilator. By Howard A. Kelly, M.D. Reprint.

The Franklinic Interrupted Current, or My New System of Therapeutic Administration of Static Electricity. By William James Morton, M.D., 19 E. 28th Street, New York. Reprint.

The Psychopathic Sequences of Hereditary Alcoholic Entailment. By C. H. Hughes, M.D., St. Louis. Reprint.

Note on the Virile Reflex. By the same. Reprint.

Schwangerschaft mit Morbus Basedowi, Vorzeitige Loesung der Normal Sitzenden Placenta. Von Dr. Haeberlin, Assistenzarzt an der Frauenklinik in Zurich.

Ueber die palliative Behandlung der Inoperabeln Uterus Carcinoma mit Besonderen Berucksichtigung der Aetzung mit Chlorzink. By the same.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, February 21, 1891, the President, L. Bremer, M.D., in the Chair.

Dr. A. Green said.—I ask the privilege of reading a quotation from Koch's speech at the late International Congress on the subject of differentiating typhoid fever by means of the feces, viz.: "A very characteristic example of the difficulty of determining the species is furnished by the typhoid fever bacillus. If the typhoid bacillus is found in the mesentery glands, in the spleen or in the liver of a patient, who has died from typhoid fever, then indeed no doubt can arise to its being the genuine typhoid bacillus; because in these localities there have never as yet been found other bacteriæ which could be mistaken for them. Circumstances, however, assume quite a different aspect when we have to prove the presence of typhoid bacilli in the intestinal contents, in the soil, in the water, or in the dust of the air, because here are numerous very similar looking bacilli, which only the well-practiced bacteriologist can distinguish from typhoid fever bacilli, and even then not with absolute certainty, since unmistakable and constant marks of them are yet wanting."

Dr. Bremer said.—In the laboratory of Koch, in Berlin, the separation of the various kinds of bacilli in suspected stools of patients is practiced; and as an illustration, the fæces are mixed with all kinds of bacteria. The student takes the mixture and is required to determine what kind of bacteria are present, and with precision, and out of these fæces to segregate the common putrefaction bacillus of various kinds, the typhoid bacillus, etc. This is determined by the way those bacteria grow upon various cultivating media—the various kinds of bacteria behave in a quite peculiar manner on gelatine, potatoes, and other kinds of nutrient media. It is not by their shape that they are to be recognized; because that is a very fallacious distinction; many of the bacteria are poly-morphous—have many shapes, and they change their shapes according to their age and the soil upon which they grow; but there are certain biological characteristics, which manifest themselves by the manner in which they affect, for instance, the gelatine upon which they grow—whether they grow in round colonies, or leaf-like colonies, or have this or that color; it is by these peculiarities that we are enabled to distinguish one bacteria from another. It is a very difficult task to discriminate the various bacteriæ found in the fæces one from the other—and doubtless sometimes impossible.

Dr. Green rejoined if we could actually diagnose typhoid fever in the beginning, it would be a very valuable faculty; but these bacilli do not show themselves in the first week or ten days after the disease has commenced; the fæces do not contain the bacilli immediately; the bacilli are found in the urine at an earlier period than in the feces.

Dr. Bremer.—It is not always easy to even diagnose a case of typhoid fever, especially when there is no epidemic prevailing. Some clinicians have taken a rather bold step by puncturing the spleen with the aspirating needle, and planting the material obtained on gelatine or potatoes, and making a diagnosis from the bacteria that developed; this has been done repeatedly, but the practice has been abandoned, because it unnecessarily subjects the patient to great danger; but the very fact that characteristic colonies grow on gelatine and on the potato shows that these characteristic appearances are of great diagnostic value, and that they enable the investigator to declare, "this is the typhoid fever bacillus and none else." It is true that experiments on animals do not furnish the typhoid bacillus, as in other instances; yet the constant occurrence of the characteristic bacillus in the mesentery glands, for instance, in the spleen and in many instances in the lungs, shows the greatest probability that we have to deal with the specific bacteria which causes typhoid fever. What is true of the typhoid fever bacillus is true of the diphtheria bacillus. No genuine case of diphtheria has ever been produced upon an animal. It is true also of the lepra bacillus; no genuine case has been reported—such assertions have been made—but no genuine case of lepra has been produced by the injection of the matter which contains the lepra bacillus into animals. There are very few bacteria in which the chain of evidence is complete, no link missing. The tubercle bacillus, as the experiments upon animals have proven to the satisfaction of everybody nowadays, is the cause and the only cause of tuberculosis. The same is true of the tubercle bacillus, the anthrax and erysipelas bacillus, there is more or less doubt attached to all other pathological bacteria that are found in the human organism; but when in a certain organism a bacillus is found that behaves in a certain way in the nutrient material, has a certain, constant form, is found in certain diseases, and is found in those diseases alone, then we

are authorized to say with the greatest amount of probability, this is the specific germ of the disease. In typhoid fever there must be already an ulcerative stage in order to discover the bacteria; but even in this stage of the disease it is sometimes overlooked, as is well proven in the typhus ambulatorius, where persons, apparently in the midst of health, drop dead; and only the post-mortem reveals the fact that they died; from typhoid fever.

Dr. Brokaw presented several specimens and said: This is a case of encysted hydrocele of the cord (exhibiting specimen), interesting only from the fact that a mistake in diagnosis had been made by the attending physician in a distant city. The patient came here for radical cure. The diagnosis of hernia had been made and efforts exerted by every physician in his town, as he told me, to reduce it. He had been kept for three weeks on an inclined place, with his feet two feet above the level of his head, ice bags and other things being applied meanwhile. A direct operation had not been entertained at all by his attendants, and yet the case was one so clearly manifest that a student, who was present, readily made a correct diagnosis. This was doubtless embarrassing from the fact that the hydrocele extended well up through the external abdominal ring. The speaker said he proposed a radical cure, having confidence in the method proposed by von Bergmann in similar cases of hydrocele, and confirmed by his own previous experience.

The speaker presented another specimen of very great interest, on account of the difficulties met with in treating the case. It is a case of tubo-ovarian disease of long standing. The woman, who was 36 years of age, had, since girlhood, at her menstrual periods, suffered excruciating pain. She had given birth to a child seven years before she presented herself, which was about a month ago. The affection had doubtless been in progress for several years. Having made the diagnosis of pelvic abscess she was informed that an operation was the only means of relief, as she had been bed-ridden for fourteen months, was losing ground perceptibly from day to day, had tried various other measures, had been treated for typhoid fever, and for nine weeks for inflammation of the bowels, and at this time was profoundly septic, had septic diarrhœa, and was emaciated to a degree such as the speaker had never seen. Yet in face of all this the operation was undertaken only to save life. Upon opening the abdominal cavity, everything was so matted together that great difficulty was experienced in finding the tube. The difficulties of the operation were increased, on account of extensive adhesions and a complication met with, which he had never before encountered, viz., the relationship of the abscesses to the great vessels of the pelvis. One abscess lay between the anterior and posterior trunks of the iliac, intimately connected with them, being rotten and friable; the abscess walls ruptured, and fortunately, because, the speaker said, had he persisted in attempts to separate the adhesions, the iliac veins or some of the larger branches might have been lacerated. Every vestige of the abscess wall was removed, the abdominal cavity was thoroughly flushed, and a drainage tube introduced; the patient's pulse was weak, and the temperature 102.5° when put on the table; both were improved. The patient rallied very slowly. The operation was performed early in the morning, her temperature being subnormal; her pulse was 130 in the afternoon, and never fell below. She died on the fifth day. Some slight *hopes* of her recovery were entertained, but not sufficient to justify an expectation. The operation was her only chance.

The third case is a myxo-sarcoma of the kidney, in a child 3 years and 8 months old. This is the second youngest child that has been operated on for this particular malignant disease. The literature embraces twenty-nine cases; this is the thirtieth operation of its kind in young children. The development of the tumor was seemingly rapid. The child had been ailing some six months before it was now seen and had apparently recovered, but during the six or seven weeks before the operation gradually became worse. The operation was performed in November last. The child had a metastasis two months ago and died. On making an effort to separate the encapsulated mass from the liver and ascending colon, the general peritoneal cavity was invaded—an accident endeavored to be avoided; and finding that the mass could not be removed without making a larger opening, it was enlarged. In separating some adhesions, the capsule of the tumor ruptured, and the contents, soft and jelly-like, escaped into the abdominal cavity. A pedicle of the uterus and renal vessels was quickly formed, and the mass tied off with the Tait knot. The hand was then introduced into the abdomen through the slit in the peritoneum and meso-colon, and all the mass, equal to a medium-sized cocoa nut, scooped out. The child reacted well; the wound in the peritoneum was closed by continuous catgut sutures; the external wound was six inches in length, parallel with the lower rib, between it and the crest of the ilium; was closed with interrupted silk sutures; the drainage-tube was kept in for three or four days, and then removed; the wound was then hermetically sealed and it healed by first intention. The child was sitting up on the tenth day, playing about the room in two weeks, and out of the house in a month. The patient did well for nearly a month when it was again taken sick, and for the first time there seemed to be some enlargement in the region of the liver. Fearing there might be a metastasis, the parents were urged to keep it in the house, but it wanted to be carried out constantly. It died suddenly about two months and a half after the operation with a metastasis of the liver. The operation itself was indeed formidable; the statistics in these cases show that 40% die as the direct result of the operation. This patient, however, recovered from the operation, was out, around, and seemingly, there was no recurrence.

Dr. N. B. Carson said.—Sometime in December last a

patient came to the hospital with this history: 42 years of age, healthy in appearance, and very intelligent for one in his station of life; he was a horse-trainer by occupation; he stated he had never had any specific disease; his family history was good, and, with the exception of a malarial attack, had had no trouble whatever until the preceding spring. He then noticed that his right arm was somewhat weaker, or more awkward in its movements, than usual, but did not notice this particularly until the latter part of May or first of June. In attempting to sharpen his scythe, he noticed that the right arm was very awkward, and it was with difficulty he handled it. He sought the advice of a physician who employed electricity. He at first noticed a spasm which drew the fingers into the hand, the thumb upon the fingers, the hand upon the wrist, then flexed the arm, raising it from the side, and then passed off. Any effort at straightening the arm during these attacks caused severe pain, and resisted all efforts at extension. From June until the time he presented himself at the hospital he had had nine of these spasms, the last one two weeks before his entrance; it commenced in the hand, flexing the wrist, then the arm, and then extended to the face and leg, and went no further. The arm and leg diminished in size; and when he entered the hospital the paralysis of the right arm was almost complete; there was paresis of the right leg, and also some slight dropping of the muscles about the mouth. Upon examination of the eye by Drs. Pollak and Wolfner, some slight changes were found, also some affection of external ocular muscles. He had no headache, no dizziness, no nausea, no pain upon percussion, and the only decided symptom was the paralysis described. A diagnosis was made of tumor of the brain, involving the hand and arm centers, and an operation was decided upon. Trephine openings were made above and in front, just below or to the outside of the marginal sinus, and at the lower end or behind the line of the fissure of Rolando, and the intervening bridge removed by chiseling, and the opening enlarged by the Rigenour forceps. The dura mater was found thickened and rough; there was no pulsation nor marked bulging into the opening. In elevating the dura mater we came down upon a tumor, springing from the dura mater and pressing upon the brain. It measured three and one-half inches in length and three inches in breadth, and about an inch in thickness. The microscopical examination showed it to to be a sarcoma. The part of the brain involved is the ascending frontal convolution, encroaching upon the second frontal convolution, and escaping altogether the part of the third frontal; for this reason there was no involvement of the speech centers. The post central convolution and the fissure of Rolando seemed displaced backward. During the operation a small portion of the tumor escaped notice, though the dura, even to the entire circumference of the opening, was thoroughly examined. The cause of death has not been satisfactorily demonstrated; there were no symptoms of sepsis, nor elements of proof that the operation itself was the cause of the patient's death. The case progressed favorably for 8 days without a single adverse symptom, and the patient was deemed so far convalescent, thnt the constant watch at the bed-side had been given up; one night the nurse left the ward for a short time, and upon his return found the patient standing in the center of the room in a state of fright, and agitated, and he wanted to go home. The nurse returned him to bed; and during examination on the next day he repeatedly said he wanted to go home; otherwise he seemed perfectly rational, presenting no symptoms of alarming changes, or causes for his mental agitation. Copious hæmorrhage much embarassed the dressing of the cranial fenestra; and in order to prevent its recurrence the entire opening was packed with gauze, and by this means a certain amount of pressure was exerted. The first dressing was made on the second day after the operation, and as there was no evidence of a recurrence of hæmorrhage, the gauze was not replaced. At the next dressing the surface of the brain seemed to be on a level with that of the skull. The symptoms assuming an unfavorable aspect, on the second day the flap was raised, and a grooved director introduced to the depth of an inch into the substance of the brain, but no evidence of pus was detected, or any changes to indicate the cause of the lethal symptoms. The brain itself has not as yet been opened; it is presented as showing in a conclusive manner the lesion that was caused by pressure, and very plainly the centers that were destroyed or pressed upon, by which the symptoms related were occasioned.

Dr. Atwood said.—At the institution where I preside post-mortems are made with great regularity. On one occasion a tumor of the description mentioned was found pressing upon the brain. The patient presented these physical indications of brain disturbances which are manifested by the spastic condition of the muscles of the arm and contraction of the fingers and thumb, all indicating very clearly the centers involved. The tumor was from two and a half to three inches in length, and two inches in breadth, and weighed about three ounces; it was not examined macroscopically; therefore neither its pathology nor histology were definitely determined, but it was firm in strncture, seeming a fibroid; it occupied exactly the position, or a little anterior to that presented here to night, and by its pressure affected perhaps more of the second convolution; it was bathed in purulent matter and extended further down, but did not quite involve the base of the third convolution of the left hemisphere, where are situated the centers of articulate speech. It was very slightly attached to the meninges; there was no aphasia, no perceptible impairment of motion, nor of sensation, nor of hearing. The woman complained only of severe frontal pain, and that was the only symptom of cerebral lesion. The symptoms which instigated her admission to the asylum were those of acute melancholia. The absence of well-defined and significant cerebral symptoms was the reason for not interfering by operation.

Many phenomena attached to the case of a Lutheran minister, admitted to the asylum, whose brain disturbance dated, according to the history given, from a fall from his horse while crossing the prairies in Iowa. On his admission there were no indications of mental im pairment, except slight general mental depression, rather than melancholia, accompanied with indications of physical disturbances of a very singular and remarkable character. These were manifested by vermicular movements generally, a worm-like action of his body starting at his head; a wriggling, squirming and twisting of the body and passing down to his feet, frequently repeated, more rarely when at repose, but recurring with greater frequency during conversation. After a few months he died, and the post-mortem revealed a bony tumor of the dura mater over the para-central lobule; it was of the shape of the new moon exactly, about an eighth of an inch in width at the center and three-quarters of an inch in length, and terminated at either cornu in sharp points, which projecting from the central surface of the dura, pressed upon the para-central lobule, causing congestion. No other pathological conditions were present except this congestion of the brain substance and dura. This case, and those similar, may, in the future, be ascertained to be illustrations of the cerebral origin of chorea. The movements manifested were decidedly chronic and persistent.

Dr. Shaw, referring to the case reported by Dr. Carson, inquired: Is the present appearance of the brain attributable to pressure exerted by the dural tumor, or is it due to inflammatory action on the brain surface since the operation?

Dr. Carson replied.—No microscopical examination has been made to determine the exact pathological condition; but at the time the tumor was removed, the brain presented an apparently healthy condition, and the convolutions could be distinctly seen; but the changes now seen have evidently taken place since the operation. Dr. Bremer took a great interest in the case; saw it before, was present at the operation, made examination of specimens of it and prepared the brain as it is now presented.

Dr. Bremer said.—When the tumor was removed—had been peeled out, as it were, there was left a tremendous hole in the head. That the brain might not well up too quickly; a tampon of antiseptic gauze was made and placed in the cavity; but even this did not prevent the welling up of the brain too suddenly, and in all probability, in consequence, a number of capillary hæmorrhages took place, owing to the long state of inactivity of the vessels; the walls of the vessels having become thinned by pressure; when the return of the normal amount of blood took place in the arteries and arterioles and capillaries, they were unable to withstand the pressure, but broke, in consequence, and necrosis followed. If the resistance of the right hemisphere be compared with that of the left a fluctuation in the latter will be perceived, indicating softening. What kind of softening it is hard to tell. No evidence of inflammation existing, the speaker thought the whole trouble arose from the excessive size of the tumor. This case confirms the assertion repeatedly made, that the result of the removal of brain tumors, even those developed from the membranes of the brain and pressing upon the brain substance, and exceeding a certain size, is usually fatal, with whatever dexterity the operation may have been performed. So it was here. This man did remarkably well for a certain length of time, until one vessel after another giving way, the extravasated blood by pressure produced disintegration and a state of necrosis, and, in consequence, insane delusions were induced. The man had no fever, but died from œdema of the brain, in the speaker's estimation; because a slight incision being made where the greatest pressure was exerted, a highly œdematious condition was found. Upon a careful examination he ventured to predict that extensive softening of the whole left hemisphere will be found.

Dr. Cadwallader inquired.—What was the supposed source of the profuse hæmorrhage before the dura was opened?

Dr. Carson replied.—During the operation, before we had apparently cut through to the bone, great hæmorrhage occurred, supposed at first to proceed from the tumor; but upon examining the specimen after its removal, the vessels of the dura were found to be very much enlarged and the inner surface of the bone, instead of presenting small grooves in which the vessels were situated, amounted almost to channels, and before the bone was completely penetrated these large vessels were lacerated, and, as a consequence, profuse hæmorrhage resulted. As soon as the fenestra was completed, extending far back beyond the site of the disease, the vessels were of smaller caliber, and the hæmorrhage not being so great, was readily controlled by pressure.

Dr. Fry said.—The most interesting point in the case is the motor phenomena presented. It seems distinct evidences of paresis or muscular inability preceded any very marked spasmodic symptoms, a course of phenomena the reverse of that usually pursued. There was necessarily an involvement of the cortex superficially, its cells and structures, and an irritative lesion, through pressure, was generated before there was any great amount of involvement of the fibers. It would be very interesting to ascertain what proportion of the motor cells are intact. The speaker said he saw the man before the operation, and the spasticity then was not great; this could, however, be elicited; for instance, by making quick flexions of the forearm, the biceps would assume a spastic condition; but the arm was paralyzed, the forearm especially, so that in moving the extremity, the patient grasped and lifted it with the left hand; there was complete paralysis, and yet there were symptoms of spasm. He thought the cortex of the whole region, that presides over motions of the forearm and hand, had been pretty well destroyed by a chronic inflammatory or sclerotic process before the operation was performed.

Dr. Carson.—The first symptom presented was loss of power in the hand; afterward that of the leg; but after the operation the condition of both was decidedly improved; so that on the second day before adverse symptoms ensued, he kicked up his leg, and said that it was as well as ever, and that all the disagreeable sensations experienced before the operation had disappeared. He said also, if it was not for the soreness in the arm (occasioned by an injection of ammonia during the operation) he felt he could handle it as well as ever. He raised his elbow, but his arm not much; he felt there was a positive improvement.

Dr. Shaw observed, that the ability to move the arm was proof that the cortical cells had not been destroyed; and it is one of the cardinal principles of cerebral surgery that simple pressure does not give rise to sclerosis, hence abscess of the substance of the brain frequently occurs without the sequence of any sclerotic trouble. It is perfectly wonderful to observe what gross symptomatology is sometimes manifested by small pathological conditions, e.g., a small tumor or small clot, insignificant lesions, apparently; while on the other hand we may have enormous tumors present in the brain without any corresponding symptomatology resulting therefrom. The case of Dr. Atwood reminded him of a case which Cunningham reports which was a cyst of the arachnoid, that extended from the fissure of Rolando well back towards the occipital lobe without producing any symptomatology, either motor or sensory; also a case of sarcoma reported of the dura, involving almost the entire motor region of the hemisphere, without the manifestation of any motor symptoms. It is readily understood that we may have, as in this case, simple pressure; and paresis and irritation resulting from that pressure. Therefore while we may be able, by means of the symptomatology of cerebral localization, to localize an irritation or a paralyzing focus; yet we must not infer that coarse disease of the brain tissue may not exist though no symptomatology be manifested.

Dr. Hurt thought some of the phenomena mentioned can be accounted for by the fact that the brain is a dual organ, and that while there may be pressure or local destruction on one side, the opposite side may perform the function of the entire organ. This is mysterious, but experience has abundantly demonstrated it. And yet physiologists admit there are exceptions. In the case reported by Dr. Carson, the probabilities are, that death was occasioned by cerebral softening, due to interference with the circulation through pressure on the cerebral substance. So long as pressure or profound irritation is not great, the symptoms may be slight and very obscure. In the case reported by Dr. Atwood the suppurative process prevented pressure, and we know there can be considerable loss of brain substance without perceptible loss of function.

Dr. Carson said.—The case narrated by Dr. Atwood was certainly very interesting, apparently involving or pressing upon the motor-centers; but had the situation of the tumor been more carefully examined, it might have been found that the greater part of the pressure was exerted towards the frontal convolutions, involving the psychical instead of the motor centers; and therefore we have the phenomena of mental depression or of melancholia, instead of motor symptoms.

Dr. Bremer said.—In regard to the case related by Dr. Atwood, insane persons furnish exceptions, even anomalies. He was reminded of a report of a case in point, furnished by Dr. McDonald in the July number of last year, of "*Brain*", a journal published in London. A woman had never manifested any symptoms whatever of coarse cerebral disease, but who was still in an advanced stage of dementia. There was not the slightest suspicion of any morbid or coarse lesion of the brain substance; and yet there was found at the post-mortem a real mine of wealth of all the pathological curiosities of the cerebrum; it was occupied almost entirely by a number of tumors of different histological varieties, very little normal cerebrum being left. So this really does occur in the insane; the classical symptoms of brain disease being absent. The example cited by Dr. Atwood is not a very rare one. Besides it must be taken into consideration, that it is exceedingly difficult to make a diagnosis in case of cerebral disease, or any involvement of certain centers in insane persons, because they cannot themselves answer intelligibly. There may have been a slight degree of paresis in that person, but which was not noticed, these conditions in the insane being very frequently overlooked. Even if the dynamometer had been used, it is probable that the pressure in the paralyzed arm would have been greater than in the sound one. The register by this instrument is entirely unreliable in such cases in the insane.

SOCIETY NEWS.

ASSOCIATION OF MILITARY SURGEONS.

The early morning trains yesterday brought a number of distinguished looking men into town. They wore fatigue caps and uniforms, and at once made their way in the direction of Dr. Nicholas Senn's residence on Twelfth street. Here they were cordially received by the doctor, attired in the uniform of a brigadier-general. The visitors, who were members of the newly organized Association of Military Surgeons of the Wisconsin National Guard, enjoyed a light lunch, after which they entered an omnibus and were driven to the Passavant Hospital. There Dr. Senn delivered a clinical lecture, which was listened to with much interest. The surgeon-general also showed the effect of the Koch treatment on surgical tuberculosis. Several cases of lupus and tuberculous disease of the hip and knee-joints, which have improved rapidly since the patients were inoculated with the Koch lymph, attracted attention. From the Passavant Hospital the doctors were taken to the Soldiers' Home, where they were shown

through the grounds and buildings under the guidance of Surgeon Leighton, of the Home.

At a meeting held in the hospital building the organization of the Association was perfected by the election of the following officers: President, Dr. N. Senn, of Milwaukee; Vice-president, Dr. F. J. Wilkie, of Oshkosh; Secretary and Treasurer, Dr. Ralph Chandler, of Milwaukee. The Association will meet three times a year.

The surgeons were next taken to the county hospital. Here a number of interesting and difficult operations were performed by Dr. Senn. A dog, which had been wounded by a gun shot, was treated, the work being closely watched, the object of the operation being to make the members of the Association proficient in the treatment of wounds of the abdomen. All of the surgeons took part in the demonstrations.

On the return trip to the city the medical gentlemen accepted the invitation of Jacob Wellauer to stop at his residence on Grand avenue. An hour or two was spent there in social enjoyment, after which the 'bus was resumed. It was after 8:30 o'clock when the party reached the Republican house, where a banquet in their honor was given by Dr. Senn. In addition to the members of the Association the following invited guests were present: Adjt.-Gen. J. B. Doe, Janesville; Quartermaster General, Otto H. Falk; Col. Hollister, Madison; Maj. Auer, Col. W. J. Dever, Dr. Makie, Dr. Mendel, Dr. Lange and Dr. Connell. Among the members of the Association who were present were:

Gen. Senn, Milwaukee; Maj. F. N. Beyers, Monroe; Capt. T. W. Evans, Madison; Capt. Joseph Whiting, Jr., Whitewater; Maj. F. J. Wilkie, Oshkosh; Capt. Frank C. Moulding, Watertown; Capt. Horace E. Mann, Marinette; Maj. John B. Edwards, Mauston; Capt. John E. Garry, Wausau; Capt. Edward H. Grannis, Menominee; Maj. Harry E. Bradley, Capt. Miles H. Clark, Lieut. H. M. Brown and Lieut. Ralph Chandler, Milwaukee, and Maj. Leighton, Soldiers' Home.

After justice had been done the elegant spread, Gen. Senn proposed a toast to the commander-in chief, Gov. Peck, which was drunk standing. The following toasts were then responded to:

"The National Guard of Wisconsin Under the New Administration—May it Prosper and Become a Source of Pride to Every Citizen," Gen. Joseph B. Doe, Janesville.

"The Citizen Soldier—the Qualities He Should Possess and the Metal of Which He Should be Made," Gen. Otto H. Falk, Milwaukee.

"The Bachelor Soldiers—Fearless in Times of Danger, Impregnable to Amour's Shaft," Maj. Louis Auer, Milwaukee.

"Surgeons and Surgery During the War of the Rebellion," Maj. F. W. Byers, Monroe.

"The Remote Consequences of Rebel Bullets," Maj. Leighton, Soldiers' Home.

"Military Surgery of the Future—Its Advance Will More Than Overbalance the Modern Implements of Warfare," Maj. F. J. Wilkie, Oshkosh.

"The Governor's Staff," Col. W. J. Dever, Milwaukee.

"Our Citizen Guests," Dr. Jacob Mendel, Milwaukee.

"The Status of Military Surgeons of the National Guard of Wisconsin," Lieut. H. M. Brown, of Milwaukee.—*Milwaukee Sentinel*, Feb. 27.

SELECTIONS.

DEFORMITIES WHICH DEVELOP IN YOUNG LIFE.

Dr. Lane in the *Lancet*: In these lectures are considered the causation, pathology, and treatment of the deformities, both simple and rachitic, which develop during young life.

1. The bones, the details of the structure, and the functions of the several joints vary with such movements as are habitually performed.

2. The form of the skeleton varies from the normal in a degree which is proportionate to the length of the period during which the movement has been performed, and to the amount of energy expended in the act.

3. For the so-called normal condition of the skeleton it is necessary that during growing life the individual shall combine attitudes of activity with attitudes of rest, and that they be varied in character.

4. During the period of a single assumption of an attitude of rest there exists tendencies to change both in the form of the bones and of the joints.

5. In the young subject the rate of growth of any portion of an epiphyseal line varies inversely as the amount of pressure it transmits. If one-half of an epiphyseal line habitually transmits more pressure than the other, the amount of bone produced is correspondingly less. Therefore the frequent assumption of an attitude of rest, not corrected by suitable variations in attitudes of activity, results finally in a progressive alteration in the form and functions of the bones and joints.

6. The more vigorous and robust the child, the less likely is he to assume attitudes of rest for any time.

7. The peculiar variety of resting posture varies to some extent with the age and surroundings of the individual.

8. The density of the osseous system varies directly with the muscular development.

9. The rate of growth of bone in an epiphyseal line is more rapidly influenced by abnormal pressure in the feeble than in the robust. This is marked in rickets.

10. In the non-rachitic child the diaphyses of the bones do not change their form materially other than by the abnormal rate of growth of the epiphyseal lines.

11. In the rachitic child the diaphyses yield in form in proportion to the degree of rickets present.

12. If the easy, erect posture be assumed constantly, and for a long period of time, typical dorsal excurvation results. Each vertebra rotates, and compression-changes occur in the anterior segments.

13. If the easy, erect posture be assumed, the individual standing on one leg, the other knee being kept bent, the pelvis is rotated around two axes, and produces an effect which gives rise to a leverage action by the transverse processes and bodies of the vertebræ in the dorsal region, producing the remarkable alteration in the form of the thorax with which we are so familiar.

14. Flat-foot is explained by the unwinding of the spinal fibres of the superior internal and the inferior calcareo scaphoid ligaments in the position of rest, or abduction of the foot upon the astragalus.

15. If the easy, erect position be assumed habitually, the outer portion of the growing lines of the femur and tibia produce bone more slowly than normal, while their inner segments form it more rapidly. This causes an outward displacement of the patella.

16. "Back-knee" is produced by habitually assuming the attitude of extension of the leg, causing the anterior segment of the epiphseal lines of the femur and tibia to transmit more pressure than do the posterior.

17. As the rickety child assumes the sedentary posture, the thorax is fixed upon the lumbar spine, the sacrum yields around a transverse axis, and there results kyphosis and the peculiar oval-shaped pelvis.

18. When knock-knee develops in a rachitic subject, the diaphyses of the femur and tibia yield also.

19. Bow-legs are developed only, with rare exceptions, in the rachitic subject. It depends upon a yielding of the softened diaphyses, and the epiphyseal lines are not markedly modified in the rate of growth until the child has acquired the habit of standing and walking. Then they react to abnormal pressure in the manner described in knock-knee, but in a reverse direction, the growth of the inner condyle being subnormal, and that of the outer condyle excessive.

20. To treat the simple acquired deformities, we should attempt (*a*) to improve the nutrition and vigor of the individual; (*b*) to prevent his assuming attitudes of rest, especially that one which is particularly responsible for his deformity; (*c*) to cause him to adopt habitual attitudes of activity; (*d*) to make him perform exercise, both generally and of the affected part in particular; (*e*) in suitable conditions apply such a mechanical arrangement as will tend to reverse the abnormal pressure and cause the bone to resume its normal form; (*f*) to avoid as much as possible the use of instruments which interfere with the full development of muscle, *e g.*, lateral curvature of the spine; (*g*) to make him rest for sufficient periods of time in suitable postures; (*h*) in suitable cases, as in advanced flat-foot, to remove the deformity, and to place and retain the part as much as possible in a position of activity for a considerable period of time by means of a suitable apparatus.—*Arch. of Paed.*

INTRA-UTERINE MEDICATION.

Edmund Falk's paper before the Berlin Medical Society emphasizes the importance of treatment and the frequency of diseases of the endometrium. General uterine treatment is confined to the specialist, yet it is necessary that every physician should know how to treat these conditions. He objects to intra-uterine injections even though previous dilatation has been done. For dilatation of the uterine canal, he recommends a tampon of iodoform gauze, medicines in a liquid form to be applied with a goose feather or raw cotton on applicator. Women who have not borne children, a previous dilatation of the cervical canal is necessary and the treatment in cervicitis is particularly applicable, because higher up, the remedies are so influenced by the secretion they exert no real effect upon the mucous membrane. Another method of treating the endometrium is by tents and salves, and for these reasons a clear apprehension must be had of the capacity of absorbtion of the genital tract. As a rule, nothing is known of the power of absorption in the virgin uterus. In his experiments, the uterus being isolated, fifty minutes after the introduction within it of tents medicated with iodide of potassium, the presence of iodine could be demonstrated in the urine; the power of absorption from the vigina was much more slow, and the mucous membrane of the labia seemed so perfect as not to have any power of absorption. As the mucous surface of the uterine cavity is a ready absorbent, many remedies introduced into it will exert a general systemic effect, which should be taken into account. This method, then, of the use of tents is one of wide applicability. Those made of cocoa-butter are readily absorbed, while those made of gelatine form a few days after their introduction a tenacious mass, which does not dissolve in water at 60° (within half an hour), and can for this reason only act in the uterus as a foreign body. Landon adopted the use of grooved sounds as were used by Cooper in the treatment of chronic gonorrhœa, cocoa-butter being the menstruum. Falk tried the antrophors introduced by Stephan, of Dresden, being thin spiral pieces of metal which were covered with the medication in an easy coating of glycerine. These curls of metal wire, made of highly-tempered wire as a basis, in order to be less liable to bend, by which means they adopt themselves to every desirable shape and reach every wrinkle of the mucous surface of the uterus. The wire is not heated very hot, so as to retain its elasticity, and that it shall not cause any abrasions after the meltings of the medication, is first protected by an absolute gelatine covering, the gelatine having been previously sterilized by heat. Before applying the medicament, the parts are disinfected (by means of cotton carried by a pair of forceps or tent-holder), which is passed through the orifice of one of these instruments without dilating; after this the woman lies down for about ten minutes, then the wire is removed by means of a thread fastened in the handle of the applicator.

Verf has demonstrated by experiments with drugs that the viscid secretion of the endometritis becomes thinner, changes color, gets colorless and finally disappears and that erosious caused by its secretions also dis-

appear. In fungoid endometritis the use of the antrophors is specially recommended, the application being of 1% dilution of chloride of zinc, $^3/_{10}$ to 1% sulph. copper, 10% of resorcin and a 5 to 10% dilution of tannin.

Gonorrhœal endometritis was similarly treated, the medicament being 2% dilution of creosote and with it $^1/_{10}$% of the bichloride of mercury, followed by a mixture of 1% chloride of zinc and $^1/_{10}$% corrosive sublimate, the chloride of zinc penetrating directly into the mucous membrane, making it possible for the bichloride of mercury to reach the depths where the gonococcus dwells.

Among the list of consequences Falk mentions, especially after certain remedies, are hæmorrhages, uterine colic (the latter being prevented by the addition of cocaine) and finally, in isolated cases, after the application of great strength, there was inflammation of the surrounding viscera, so that even by this method the dangers of intra-uterine medication are not overcome.—Walter B. Chase, M.D., in the *Ther. Gazette.*

THE REGULATION OF PROSTITUTION.

This is a subject which has been very widely discussd and written upon in Europe during the last few months. The French have taken it up in connection with the question of the depopulation of France. At the International Medical Congress Dr. Thiry (*Le Mercredi Med.*, August 20, and *N. Y. Med. Jour.*) of Brussels, read a paper on this subject, in which he states that prostitution, whether desirable or not, is a necessary evil; and that, if it were possible to suppress it, society would be afflicted by libertinism. Inspection is the sole way to protect prostitutes and those that use them from disease. In certain countries it is ignored, on the fallacious theory that it antagonizes liberty and the dignity of women. Another error is to regard prostitution as a crime. He considered that the regulation of prostitution is necessary to restrain the propagation of venereal and syphilitic diseases. Prostitution that attracts attention by the frequenting of streets, being the most powerful cause of propagating venereal diseases, should be forbidden, and it should be confined to registered houses, with frequent sanitary visits.

Dr. Kaposi said that in Vienna each prostitute receives a book containing a description and photograph of herself, and a copy of the laws relating to prostitution. No one under sixteen can be registered, nor persons afflicted with organic or constitutional disease. Sanitary examinations are made twice a week, all diseased women are put into hospitals, primary syphilitic cases are quarantined for three months, and kept under treatment for two years. Clandestine prostitutes are treated in the same way by their own physicians.

Dr. Nesser had examined 572 prostitutes in Breslau, and found the gonococcus in 216 patients.

Dr. Felix of Bucharest, Dr. Drysdale of London, Dr. Heinzinger of Groningen, and Dr. Crocq of Brussels, opposed Thiry's conclusions, particlarly the limitation of prostitution to a few public houses. Felix held that in the future we should instruct, without false modesty, the pupils of higher classes in colleges regarding the dangers to which they were exposed, and instruct them primarily on the various prophylactic measures. The criticism was made that this desideratum was possible, but would not "professor of coitus" be a veritable innovation for the end of the century?

In France, M. Commenge recently stated, at a meeting of the Academy of Medicine of Paris, that he had collected the statistics of the number of diseased prostitutes found in the decade from 1878 to 1887: First, among women registered by houses or cards; second, among those women that—though registered—were the objects of more or less frequent arrests, and constituted a special class under the name of *femmes du depot*; third and lastly, among the uninspected, or women that lived by clandestine prostitution. The result obtained, based on nearly a million visits, showed the number of cases of syphilis in each thousand examined to be respectively 3.1, 2.7 and 23.9. Of other venereal diseases 3.0, 2.5 and 14.5.

The crusade against the Contagious Diseases Act in England results in what would have been expected. From 30 to 40% of troops, quartered in garrison towns were on the sick list with venereal diseases, while during the enforcement of the law the proportion so affected was very small.

It is only by the accumulation of such statistics that the fanatical sentiment against the regulation of prostitution can be overcome and the health of innocent women and children protected.—*Boston Med. and Surg. Jour.*

PREVENTION OF INFECTIOUS AND CONTAGIOUS DISEASE.

He shows the uselessness of disinfection by burning sulphur and by the other ordinary methods employed for that purpose, and advocates the use of superheated steam. He shows the practicability of steam disinfection on a large scale by describing the system as carried on in Berlin. It must not be understood that in superheated steam we have an infallible method for the prevention of infectious disease, but we can thus render aseptic in a convenient way those articles which are the most common vehicles of infectious and contagious disease.

In preventing the spread of contagious disease the immediate isolation of the patient is important. He should be confined to one room; the nurse should attend the patient; the meals should be brought to the door and all visitors and members of the family should be excluded from the sick-room. As soon as the patient has recovered or died, thorough disinfection should be undertaken by the most efficient means at command.

If steaming is impossible, there is thorough disinfection by means of carbolic acid or by chloride of mercury. Children should not be allowed to return to school and visitors should not be allowed in the sick-room until this has been thoroughly done.

Carpets, if such nuisances are allowed in the sick-room, should be sent, protected by antiseptic sheets, to some steam carpet-cleaning company. The same may be done with feather-beds, mattresses and pillows Where walls are papered, a very good means of removing almost all the germs consists in thoroughly rubbing them down with moist bread. All wood work and furniture should be thoroughly washed with an antiseptic solution.

In diphtheria, the sputa should be received in an antiseptic solution, as in cuspadores, which can be destroyed by fire. In scarlet fever, during the stage of desquamation, means should be taken to prevent the fine scales containing germs from floating off. This can be effectively done by anointing the patient once or twice daily with some animal fat. The disinfection of typhoid-fever stools is a very important sanitary measure.—C. Lehlbach in the *Phila. Med. and Surg. Rep.*

THE SURGICAL TREATMENT OF ERYSIPELAS, WITH REPORT OF THREE CASES.

It is now generally admitted that erysipelas has for its immediate cause the entrance and development within the human body of a living germ; and, while proof of this is not as yet conclusive, we are in possession of sufficient knowledge to establish this opinion with a considerable degree of probability.

Koch, of Berlin, describes the specific organism of erysipelas as a small micrococcus of globular shape. They are from three to four micro millimeters in diameter, and unite in pairs or form short chains; they are found in the erysipelatous skin, and in the fluid of erysipelatous bullæ, and they advance along the lymphatic channels of the skin as the disease spreads. Multiplication takes place by fission, each half becoming of the size and shape of the parent cell and soon splitting again. Innoculation experiments have shown that the period of incubation is from twenty to sixty hours; so we can estimate the time from infection to the beginning of erysipelas with a good degree of certainty, as between one and two days. In the great majority of cases infection takes place through a wound or through a slight abrasion of the skin, which may have been so slight as not to have been noticed by the patient.

The object of treatment is to bring the coccus of erysipelas, as it travels in and along the lymphatics, in contact with antiseptic fluids. Among some of the methods proposed have been the injection hypodermically of a 2% solution of carbolic acid, or a solution of resorcine, twenty grains to the ounce, the injection being made at the junction of the normal and the inflamed skin. This latter treatment has met with more or less success.

Volkman's assistant, Kraske, modified this treatment by making incisions on the border of the erysipelas, extending them into the normal skin. These first incisions were crossed in a diagonal direction by others, so that when the operation was completed it presented somewhat the appearance of a rail fence. The object of this treatment was to allow the antiseptic fluid to reach the coccus in and around the lymphatics; it also tended to render and keep aseptic the part likely to be next attacked by the disease. The wound was dressed with a moist dressing of carbolic acid or one of the mercurial solutions, and the dressings were kept wet with the antiseptic solution.

Reidel and Lowenstein (*Deutsch. Med. Woch.*, March 14, 1889) improved the method of Kraske's by confining the fence of incision to normal tissue, about one or two inches from the border of the erysipelas. Their object was to prevent possible infection of an aseptic part This treatment has given better results than either of the others.

As in all operations performed at the present time, the rules of antiseptic surgery should be strictly followed. With the exception of very young children and nervous women, I do not consider an anæsthetic required, as it takes but a very few moments to make the "fence."—Herbert C. Rogers, M.D., *in Brooklyn Med. Jour.*

RED STOCKINGS.

The *Journal d' Hygiene* reports an interesting fact recently submitted for the consideration of the Council of Hygiene and Public Health, in the Department of the Seine.

A number of infants had been attacked with a severe irritation of the skin and itching after having worn stockings dyed red. One of them presented symptoms resembling active poisoning.

An inquest was ordered by the Prefect of Police, and two pair of stockings were enclosed in a sealed package and sent to M. Schutzemberger for examination.

The learned specialist of the Council of Hygiene found that the color of these stockings had been obtained from a coloring matter analogous to congo (the coloring principle of benzidine or of tobedine), associated, very probably, with another red coloring matter derived from aniline or its analogues. As a mordant it was necessary to employ tannin and tartar emetic or tartarized antimony.

The examination for arsenic gave positive evidence of its existence, but in quantity too small to permit any responsibility for the accidents to be attributed to it.

In regard to the oxide of antimony, the case was different, for it was found in large quantity.

"Under the influnce of the cutaneous perspiration," said M. Schutzemberger, "a part of this agent may be dissolved and cause an irritation of the skin, with the

formation of pustules. It is known that the ointment having tartarized antimony for its base is employed for this purpose. If different kinds of material dyed in this way with tartar emetic and tannin cause no inconvenience so long as they are separated form the skin by some other inoffensive material, it is not the same with stockings, which rub directly on the epidermis and cause irritation, more or less extensive and penetrating, when they contain agents such as the oxide of antimony, which may be dissolved by the action of the perspiration."

Having heard the report of M. Schutzemberger, the Council of Hygiene decided that the use of stockings dyed with the aid of metallic preparations should be proscribed and considered as dangerous, especially in the case of infants.—*Sanitarian.*

A NON-POISONOUS NON-IRRITATING DRESSING.

Francis T. Henston and Charles T. Tichborne in a preliminary communication, before the recent meeting of the British Medical Association, reported in the *British Medical Journal* of Nov. 8, give the results of their experiments with sulphite of zinc dressing— covering a broad field of capital and minor operations. The results obtained were better than under any other form of dressing. The list of operations in which this dressing was employed comprises amputations of breast, excisions of knee-joint, radical cure of inguinal hernia, psoas abscess, parotid tumor, arthrectomy, ovariotomy, nephrolithotomy, removal of false cartilages from the knee-joint, etc.

Wounds dressed with the sulphite of zinc gauze pursue a perfectly aseptic course; and in none of the cases was there the slightest irritation from the dressing; even where the discharges from the wounds were very abundant. "When sulphite of sodium is mixed with sulphate of zinc, the sulphite of zinc is very slowly formed, but is ultimately all deposited, owing to the insoluble nature of the new formed salt. This phenomenon adapts it naturally and with ease to the permanent saturation of any fabric, as gauze or lint, and without the intervention of an adhesive material such as starch."

The gauze is prepared as follows. "First boil the gauze in water to thoroughly wash and sterilize it; then upon this gauze is poured a boiling solution of zinc sulphate and sodium sulphite in equivalent proportions" (*i. e.*, "six parts of zinc sulphate to five and a quarter parts of sodium sulphite in solution"); when thoroughly mixed and saturated, the whole is allowed to stand for twelve hours. The zinc sulphate is deposited in and around the fibres of the fabric in microscopic crystals, but soft and even unctious to the feel." To remove all sodium sulphate which may remain the gauze is passed twice under rollers submerged in water.

The value of this dressing as an antiseptic consists in its slow oxidization, thus destroying germs. It has the additional advantage of the zinc base, "which is shown by the efficacy of the zinc salts in embalming the dead, and rendering the tissue an inert and unchanging mass."

We hope the new dressing will prove a decided acquisition to the surgical armamentarium, free from the irritating properties of plain bichloric and alem broth dressing.—*Atlantic Med. and Surg. Jour,*

A PRACTICAL METHOD OF STAINING TUBERCLE-BACILLI.

A method of staining tubercle-bacilli which is very desirable because of its practicability, is described by Dr. M. Friedlander. Its value is further enhanced by the fact that it does away with the inconvenience of handling cover glasses, which become superfluous, and the rapidity with which the preparations may be made. Five or ten minutes are sufficient to prepare two specimens. The required solutions are: (*a*) Ziehl's solution, consisting of a mixture of 5% carbolated water with an alcoholic fuchsin-solution short of precipitation; (*b*) a mixture of 5 gm. chemically pure nitric acid with 100 gm. 80% alcohol; (*c*) a concentrated solution of methyl-blue in water. The mode of procedure is as follows:

With a pincette or needle a minute portion of the sputum to be examined—a piece about as large as the head of a pin—is placed upon and evenly spread over a carrier, so that it covers as much space as a dime. It is now exposed to the air for about two or three minutes for the purpose of drying it, during which time the second preparation may be made. The air-dried specimen is three times slowly carried through the flame of a Bunsen burner or a spirit lamp; this done, it is covered with two or three drops of the fuchsin-solution and placed, moist side up, above the flame until the water of the solution rises in vapor. The preparation is then immersed in water for a moment, rapidly withdrawn, and covered with a few drops of the acid-alcohol mixture, which is allowed to remain for about half a minute until apparently complete discoloration has taken place, when the mixture is rinsed off with water. Now several drops of methyl-blue are placed upon it and permitted to act without the application of heat, until the second preparation has reached the same stage of completion. Then it is washed in water, and dried with blotting-paper and the flame. It is then covered with a drop of cedar-oil, leaving the cover-glass away entirely. The extent of the preparation generally enables complete examination of the sputum with two slides.—*Pittsburg Med. Rev.*

Lard in Strychnine Poisoning.—In the *North Carolina Med. Jour.* for September, Dr. W. H. Cobb, jr., records an interesting case of strychnine poisoning. The patient was a colored woman æt. 42, who whilst suffering from what she called "inward fever" had taken two capsules which she supposed to contain quinine,

but which actually contained strychnine. After taking them she busied herself about breakfast, and, after working for some time, she says she heard them "bust" in her stomach. At 7:30 the family sat down to breakfast, when, just as she was about to drink some coffee, she was seized with a tetanic spasm. Her husband, finding that she had taken the strychnine capsules, immediately began administering lard to her until she had swallowed about one pint of it. The doctor arrived some two hours after the poison was taken, and at once administered morphine, gr. $\frac{1}{4}$, and atropine $^1/_{200}$, to control the painful spasms; this was followed by emetics of ipecacuanha and warm salt and water, but without result; later on, however, tickling the fauces induced emesis, when she vomited up about a pint of lard. She did not vomit again, though renewed efforts were made to make her do so, but after another dose of morphine and atropine the spasms abated, and she made a good recovery. Dr. Cobb attributes the favorable result partly to the fact that the capsules were about 16 months old, and, therefore, took some time to dissolve, and partly to the incorporation of the poison with the lard, and its consequent non-absorption. The failure of the emetics to produce vomiting he ascribes to the fact that the stomach was lined with a layer of lard.—*Br. Med. Jour.*

Craniectomy for Microcephalism.—Some months ago we published in this journal the details of a case removing a part of the bones of the head in a microcephalic idiot by M. Lannelogue of Paris, which was followed by mental and physical inprovements. Recently, Dr. W. W. Kean of Philadelphia has reported in the *Medical News* a similar operation on an idiotic girl æt. 4, who had been intelligent as a baby and had even begun to talk, but subsequently lost her speech and could not walk. Her head was prognathous and the fontanelles closed. The wound healed kindly in five days, but as yet there is no mental improvement reported. In the same journal Dr. Trimble has reported a similiar operation on a microcephalic boy æt. 3. The wound healed in five days, and the child subsequently improved in temper, learned to speak a few words and shows signs of continued general mental improvement.

These cases, while not showing brilliant results demonstrate that the operation is not dangerous, and as the condition of microcephalism is so unpromising that even moderate improvement would seem to justify the surgeon to undertake the operation. It is unnecessary to say that it should be resorted to early if good results are to be expected from the operation.—*Country Doctor.*

Excision of the Chancre to Abort Syphilis.—H. Leloir (*Journal de Medicine*, No. 42, vol. ii., p. 618, 1890) reports two interesting cases of excision of chancre. The first was the case of a young man who had had connection with a syphilitic woman. Medical examination made on the day after coitus showed that the woman had chancres and glandular involvement; and some days later the appearnce of roseola and mucous patches. The young man was placed under close observation, and directed to examine himself very frequently.

Ninteen days after the coitus a papule appeared on the prepuce. This was excised freely, and the base cauterized upon the morning of its appearance. No glandular involvement could be detected. Six weeks later the symptoms of constitutional syphilis were developed.

In the second case, a man who had never had syphilis, contracted a sore on the prepuce from a woman, who was proved, by medical examination, to be syphilitic. The sore appeared twenty-four days after coitus, and presented every appearance of a chancre. There was slight induration of the inguinal glands, which the patient stated had existed before the appearance of the sore. The chancre was excised five days after it was first observed. The wound healed readily without induration. The man was kept under observation for four months, and examined carefully twice a week, without the appearance of any symptoms of syphilis.—*Am. Jour. Med. Sci.*

Some Applications of Hot Water.—Headache almost always yields to the simultaneous application of hot water to the feet and back of the neck.

A towel folded, dipped in hot water, wrung out rapidly, and applied to the stomach, acts like magic in cases of colic.

There is nothing that so promptly cuts short congestion of the lungs, sore throat, or rheumatism, as hot water when applied promptly and thoroughly.

A towel folded several times, and dipped in hot water, and quickly wrung out and applied over the toothache or neuralgia, will generally afford prompt relief.

A strip of flannel, or napkin folded lengthwise, and dipped in hot water, and wrung out, and than applied round the neck of a child that has the croup, will sometimes bring relief in ten minutes.

Hot water taken freely half an hour before bed-time is helpful in the case of constipation, while it has a most soothing affect upon the stomach and bowels. This treatment, continued a few months, with proper attention to diet, will cure any curable case of dyspepsia.—*Med. Age.*

The Baltimore & Ohio Railroad.—The immense delegation of physicians from the West to the meeting of the American Medical Association, at Washington, May 5, will, it is presumed, indulge the luxury of a trip over the Baltimore & Ohio Railroad. Inventions of modern times have made the passenger equipment of

the route perfect, besides the grandure and beauty of the scenery along its line is world-renowned. In no distance of equal length on the continent is there such variety of views of mountain, valley and stream, and nowhere are the surroundings invested with greater historic interest. One has but to repeat the names Potomac, Shenandoah, Harper's Ferry, to have come trooping upon the memory a legion of events and incidents that crowd the pages of the latter history of the Republic. Much of the region traversed by the B. & O., was, during the civil war, the debatable land over which the contending hosts marched and fought, alternately pursuers and pursued. At Harper's Ferry the old brick fort from which John Brown bade defiance to Virginia's pride and power, still stands, in full view from the car windows as the train glides on to the graceful bridge that here spans the Potomac. It is at this point the historic river, disdaining impediment, has literally cleft its way through the Blue Ridge Mountains, whose rock-ribbed walls rise sheer, for a thousand feet, from the waters edge. This is but one picture. The entire line, from Washington to the Ohio River, is a living gallery of views that prove a source of present delight to the traveler, and become a cherished recollection in after years.

St. Louis to Chicago.—Are you going? If so, study the advantages offered by the Vandalia and Illinois Central line. Three trains daily except Sunday, and two trains daily. This is the only line with a Sunday morning train for Chicago. Leave St. Louis, daily, 8:10 a. m., arrive at Chicago, 4:45 p. m., and daily at 8:00 p. m., arrive at Chicago 7:00 a. m. Daily except Sunday at 8:40 a. m., arrive at Chicago 7:20 p. m. Rates always as low as the lowest. Ticket offices Southwest Corner Broadway and Olive Streets and Union Depot.

Fast Time to the South.—Your very wants anticipated. Your comfort, ease, pleasure and safety secured by going South over the Cairo Short Line and Illinois Central R. R. Two trains daily, St. Louis to New Orleans. Leaving St. Louis 8:30 p. m., and reaching New Orleans at 8:00 p. m. the following day—23 hours and 30 minutes; or leaving St. Louis 8:30 a. m. reaching New Orleans at 8:25 a. m. next morning—23 hours and 55 minutes en-route. Only one night on the road. Pullman vestibuled sleeping cars and through coaches. Ticket offices 217 North Fourth St., and Union Depot.

Talking About Memphis.—The Chicago of the South. The tide of travel between St. Louis and Memphis is now turned to the Cairo Short Line and Illinois Central Route. Their new train leaving St. Louis at 8:30 p. m. daily, reaches Memphis at 8:40 a. m. next day, only twelve hours on the road; one hour ahead of all other lines. No vexatious ferry transfers via this route. Pullman buffet sleepers and parlor coaches run through. Ticket offices 217 North Fourth St., and Union Depot.

USEFUL FORMULÆ.

Lip Salve.—

℞	Almond oil,	℥ 4½.
	Spermaceti,	ʒ 6.
	White wax,	℥ 2¼.
	Carmine,	gr. 18.
	Balsam of Peru,	gtt. 45.
	Otto of rose,	gtt. 30.

Melt the spermaceti and wax, add the almond oil, the balsam of Peru, and finally the carmine and otto.—*B. & C. Drug.*

Glycerin Emulsion.—

℞	Blanched sweet almonds,	℥ jss.
	Powdered acacia,	gr. 100.
	Glycerin,	℥ v.
	Rose water,	℥ xx.

Beat the almonds perfectly smooth with the gum. Then rub in gradually 15 fl. oz. of water; lastly add the glycerin. If desired, this latter may be perfumed with any essential oil.—*Drug. and Chem.*

Treatment of Cholera Infantum.—Dr. Leonard G. Broughton, of Reidsville, N. C., recommends the following mixture in severe cases of cholera infantum with profuse and watery stools:

℞	Salicylate of bismuth,	2 drachms.
	Sulpho-carbolate of zinc,	4 grains.
	Chalk mixture,	1 ounce.
	Paregoric,	½ ounce.
	Water,	½ ounce. M.

One drachm of this should be given every two hours until the bowels are controlled, after which the following is prescribed:

℞	Calomel,	1 grain.
	Sulpho-carbolate of sodium,	20 grains.
	Saccharated pepsin (P. D. & Co.)	19 grains.

Divide in ten powders and give one every three hours. If the stomach is not irritable, sulpho-carbolate of zinc is substituted for the sodium salt in the last prescription.—*Ther. Gaz.*, November 15, 1890.

Lister Antiseptic Solution.—

Benzoic acid,	grs. 64.
Boracic acid,	" 128.
Thymol,	" 30.
Menthol,	" 30.
Borax;	" 64.
Oil of eucalyptus,	drops, 4.
Oil of wintergreen,	" 4.
Oil of horsemint,	" 5.
Alcohol,	℥ iv.
Water enough to make,	pint. 1.

Dissolve the benzoic acid, boracic acid, thymol, menthol and the oils in the alcohol, and the borax in the water. Mix the solution, shake occasionally and after 24 hours, filter. Add a few drops of caramel to give it a light straw color. Mr. Redsecker states that this solution will be found equal in every respect to listerine, —*Dixie Doctor.*

ORIGINAL COMMUNICATIONS.

THE HEADACHES CONSEQUENT UPON ABNORMAL CONDITIONS OF THE OCULAR MUSCLES.

BY WM. DICKINSON, M.D., ST. LOUIS.

Headaches as well as all other aches and pains are the common experience of man. The affection is a legacy entailed upon her posterity by our good mother Eve. As charitable and forgiving as we may wish to be on account of the gratification of her curiosity or ambition, we cannot obliterate the occasion of this record, "In sorrow shalt thou bring forth children." The inquiry what the oondition of the human family would have been had not the moral tragedy of Eden been enacted, opens doors of conjecture and speculation, infinite in number, and a scope limitless in bounds.

Pain from whatever cause and wherever felt, is the language of lesion; the outcry of Nature by which she informs the consciousness that a sensitive part is irritated or injured, or in an abnormal condition. The state of perfect health is the unerring exponent of the normal condition of the human economy, and that throughout all its multiple organs and their functions, there exists a harmony designed by the Creator. It is only when irritation from without or within supervenes that the normal equilibrium of the vital forces is disturbed and the phenomenon of pain is induced of which we are then compelled to take cognizance. Pain, as all well know, may be constant or intermitting; may be manifested at the point of lesion or in parts remote from the seat of the exciting cause.

The different forms of irritation by which pain is occasioned may be embraced under the designations, mechanical, thermic, chemical, electric and pathological. Of these, mechanical comprises the larger number, and among those of this class, pressure upon a sensitive part may be designated as the most frequent cause.

Pain can properly never be attributed to neuralgia as its cause, notwithstanding—by what perversion of language I cannot imagine—such is the teaching of most of our text-books, treating neuralgia as a distinct disease, and thus elevating a mere symptom to the dignity of a special disease.

Headache never occurs without an adequate cause. In some cases the cause may be obvious; in others our most diligent inquiry, and the exercise of the highest sagacity and wisdom may fail to determine it. This failure is the result of the finite powers of our minds, and not because no sufficient cause exists. The proximate cause of most forms of headache depends upon abnormal conditions excited in the territory supplied by the ramifications of the ophthalmic division of the fifth cranial nerve. This division of the trigeminus is purely sensory; it first gives off a twig to the tentorium; it then enters the orbit through the sphenoidal fissure, at which point it gives off a nasal branch which subdivides into the frontal and lachrymal nerves. But in its course hitherto it has received contributions from the cavernous plexus of the vasomotor portion of the great sympathetic nerve. The destination of the frontal branch is to the skin of the forehead, anterior two-thirds of the scalp, the eye brow, upper lid and adjacent part of the nose under the names, supra-orbital and supra-trochlear branches. All the parts of the eye receive their sensory endowments from this nerve, and through the medium of the ciliary ganglion it supplies sensation as well as motion to the ciliary body and muscle, which presides over the accommodative power of the eye; that is, that power, by which we are able, in successive moments, to see objects at different distances.

The headaches under consideration have their origin in asthenopia, a term signifying weak sight; but in its broader and technical application, it denotes an abnormal condition or relation of the dioptric apparatus, especially of the ocular muscles; in consequence of which the visual effort cannot be exerted and sustained without exciting the sensation of pain. As just intimated asthenopia is due chiefly to two causes, viz.:

1. Asthenopia is due to an abnormal position and relation of the dioptric media in reference to the macula lutea, induced by a deviation in form of the globe from the normal. These factors with the pain resulting from the accommodative effort made by the ciliary muscle to regain the normal relations, constitutes accommodative asthenopia.

Convergence of the visual axes of both eyes to a common point being requisite for distinct binocular vision, the 2d form of asthenopia is due to the sustained effort exerted to converge to this point the visual axes, which, without such effort, could not be converged. The elements rendering this muscular effort necessary and the pain resulting therefrom is termed "muscular atthenopia." The grand object and end of the entire accommodative and muscular apparatus, therefore, is to adjust the dioptric media in such manner, and give the visual axes such direction that the images of external objects in the act of vision, shall be exactly and simultaneously focalized upon the macula lutea of both eyes.

If a person with normal eyes attempts to use strong magnifying glasses, he soon experiences a sense of inconvenience, and if he persists in the effort for a considerable time, vertigo, nausea and even vomiting may result. If only one eye is experimented with this result does not occur, hence these sensations arise from efforts made to secure binocular vision.

In muscular asthenopia there is experienced a sense of painful fatigue of the eyes after close work or reading, usually located at the inner side of the globe, not always severe but in kind similar to that felt in a muscle or series of muscles in other parts of the body, after a strain or other unusual exertion. At other times it is a sense of lassitude, of tension or pressure behind the

globe, accompanied by headache, especially in the frontal region; in certain cases these symptoms are aggravated by the occurrence of vertigo and nausea, and in the act of reading the letters often become confused, seem to run together or the words to overlap each other. The dull pain felt over the brows often extends to the back part of the head, the latter more especially after the lapse of a few hours after suspending the use of the eyes. This is that form of headache to which I desire to give especial emphasis on account of its frequency and of the disqualification for the performance of ordinary duty which it produces, and on account of the futility of attempts to cure or ameliorate it by the administration of drugs. After a period of cessation of the use of the eyes, and sufficient time allowed for the overtaxed muscles to rest and regain their normal vigor, the pain simultaneously disappears, but to return again when the eyes are subjected to the same visual efforts. Hysteria, neurasthenia, adolescence and excessive application of the eyes in study are conditions especially favorable for the supervention of this form of headache. The headache of youth occurs most frequently between the ages of 15 and 18 years, and is more often met with in males than in females.

Now what is the remedy? If the asthenopia be accommodative (which is the expression of enfeebled or insufficient energy of the ciliary apparatus), induced by over-exertion or from a state of paralysis or paresis of the same, occasioned by diphtheria or other cause, resort must be had to the use of glasses, intelligently selected and adapted to the existing requirements. The random selection of glasses from the limited assortment of ordinary opticians is to be deprecated, since it rarely fulfills the existing demands. In addition it may sometimes be necessary to paralyze the accommodative apparatus, putting it at rest and rendering it incapable of action, in order that while in this state it may recover its wonted tone and energy.

Muscular asthenopia is occasioned, as has been stated, by the sustained effort exerted by the extra-ocular relatively enfeebled muscles, in converging the visual axes to the required focus and thus secure binocular vision. This defect of convergence exists in different degrees, from the slightest departure,to that in which absolute inabilty to accurately converge exists (a degree of strabismus divergens being present),in the lattter class of cases attempts to converge both axes are made, but when unable, one eye alone is used, the other being closed, or allowed to assume a position that is found to be easy and natural, and the impressions received are disregarded.

The effort to diverge is sometimes demanded, in consequence of the existence of an abnormal degree of convergence, or from excessive contraction of the rectus internus muscle, not sufficient to constitute positive strabismus-convergens. In either case the demands made upon the ocular muscles are greater than in their present abnormal condition they are able easily and continuously to exert; and hence pain is experienced, which pain is the announcement of their inability so to do. Now, what is the remedy? In mild cases the methodical exercise of the muscles, the rectus interior or rectus exterior, for the purpose of thus developing muscular power. This is to be secured by the pursuit of a systematic method of ocular gymnastics, daily practised. And how accomplished? By the use of prisms.

In the severer cases, resort must be had to the partial or total section of that muscle or system of muscles which are antagonistic to the one in which resides the insufficiency or inability spoken off—an operation involving the exercise of great judgment and the full appreciation of the existing requirements. For, if section of the muscle or muscles is made to an extent less than is required, the desired end fails of accomplishment; and if it is made to an extent greater than is required, positive strabismus is the result, a condition to be corrected only with considerable difficulty.

There is still another deviation of the dioptric media from the normal, termed astigmatism, which we have not space to consider at length. This term is descriptive of that condition in which there is a difference of curvature in the different meridians of the cornea or lens, or both. The protracted use of eyes in this condition occasions pain in the eyes and head, resulting from the muscular effort instinctively made to overcome its inequality.

From what has been said, it will be seen that two special forms of asthenopia are recognized, viz., the accommodative and the muscular; and that headaches are occasioned by use of eyes affected with either, even when existing alone, to which astigmatism may be added; and since headaches may also result from a combination of any two or more of these conditions, we have a summary of the causes as follows, viz.: Accommodative asthenopia, muscular asthenopia, muscular asthenopia and astigmatism, accommodative asthenopia and muscular asthenopia combined, and muscular asthenopia and astigmatism combined.

The narration of a few cases which have occurred in my own experience and in that of others, taken for illustration without special acknowledgement, will afford a more intelligible appreciation of the headaches under consideration and the result of methods adopted for their relief.

And first, a case of accommodative asthenopia:

A gentleman, æt. 30, had suffered for several years almost continuous headache during waking hours, and was often in the hands of a physician. He was found to have insufficient energy of the ciliary muscles. This was obviated by the judicious use of eserine and the use of appropriate glasses. In a month he was quite free from his headaches. During the four subsequent years he suffered but little from this affection, having found a sovereign remedy in the course prescribed.

I will next present a case of combined accommodative and muscular asthenopia:

A young man, æt. 15, from St. Joe, Mo., consulted me. His eyes had troubled him for two years; he could

not read for a longer time than three or four minutes without pain; in study, he experienced an aching sensation in the eyes, and if their use was persisted in it produced severe pain in the eyes and in the fore part of the head, accompanied with a "drawing" sensation and with ocular spectra. Slight convergence of the optic axis could be detected by a mere glance. The pain experienced was occasioned by the great exertion made by the rectus externus muscle in order to overcome the abnormal convergence. I gave him appropriate glasses, advising an operation, but the latter was not then consented to.

In the following year he again consulted me. At this time he had some granulation of the lids, for which I gave him a collyrium, but the chief occasion of his present consultation was the persistence of the pain in his eyes and head after using his eyes, even for ten minutes. I now performed the operation recommended at his previous visit. The rectus internus of the left eye was very carefully separated from the sclera, just at the point of insertion. He then returned home and to school. A month later his mother wrote: "My son can see straight, and, with the use of his glasses and your medicine, he is able to do more than he ever has done." And adds, "he says the operation was 'boss.'" During the next summer he again returned, on account of the pain still experienced in his eyes and head, whenever he used his eyes in study. On this occasion I divided the rectus internus of the right eye, by which he was entirely relieved of his asthenopia, abandoned the use of his glasses, and in the following year he was entirely cured and actively engaged in business.

Another case, that of a man who had suffered extreme pain in the occipital and temporal regions, was never free from pain when awake, is in an extremely irritable state, rests poorly at night, has more or less backache, and is always constipated; his face is usually flushed, although he is of strictly temperate habits, and is much troubled with vertigo. He was obliged to relinquish his business, being secretary in a large public institution, and for some time was under the treatment of another physician. Upon examination he was found to require glasses and to suffer from insufficiency of the rectus internus muscles. Proper glasses were ordered, and partial section of the rectus internus muscle was made. The patient rapidly improved, becoming rid of former painful symptoms, and in a few weeks was able to return to clerical duty.

Another case of muscular asthenopia: A girl, æt. 10, had always been subject to severe headaches located in the temple and back part of the head. Although rarely free from suffering, her pains are greater if she attempts to look at books. She is very pale and thin; walks feebly and seems quite exhausted after very moderate exercise; her face is quite expressionless, her speech lacks energy, and in all respects she seems to be in a state of great nervous exhaustion. Her eyes, on examination, showed insufficiency of the rectus externus muscles. After the latter was increased by systematic exercise, the rectus internus was partially divided, after which she very soon regained strength and elasticity; expression returned to her face, and vigor and activity to her limbs; her headache ceased, and mental energy followed, and thus she continued for three years thereafter, the time of latest advices.

The next case which I shall relate is that in which accommodative asthenopia and astigmatism are combined.

A lady, æt. 57, has had headaches since she was 15 years of age; is a large well-developed woman, and apparently vigorous. Paroxysms of headache occur at intervals of from once a week to once in two weeks. They are of great intensity, and not unfrequently quite alarming to her friends and physician. In the interval she suffers from sciatica, mental depression, from dull headaches, palpitation of the heart and dyspepsia. Two sisters are subject to chronic headache. An examination of her eyes disclosed a moderate degree of astigmatism and deficient adducting force. A combination of spherical and cylindrical glasses was given for reading, and the adducting power promoted by prisms. A month later she reported no pain during the last two weeks; and two years subsequent, reports "have had no pain, dyspepsia, palpitation nor sciatica."

The last I shall present illustrates a case in which the three affections, accommodative asthenopia, muscular asthenopia and astigmatism, are combined:

A young lady, æt. 17, had, for three years, suffered from "blind headache," so termed. She was delicate and anæmic, suffering from nervous irritability, almost characteristic of chorea, and quite unable to endure ordinary physical exercise. Paroxysms of headache occurred once or twice a week and lasted for one or two days. The onset of the attack was uniformly marked by a total loss of one-half of the field of vision, and enfeebled vision in the remaining half of both eyes. After half or three-quarters of an hour of this visual disturbance, which was associated with pain over the eyes and through the orbits, and with a sense of general chilliness, the orbital and frontal headache became most intense, nausea followed, and the patient was forced to retire to her bed in extreme torture and prostration. Vomiting usually occurred, but not uniformly. She was found to have moderate astigmatism and deficient adducting power. The former being corrected by cylindrical glasses, and the latter by systematic exercise of the ocular muscles, especially the rectus interni, in the space of three weeks her headaches ceased entirely, and she was soon in excellent health.

In this paper I have designedly refrained from employing the nomenclature of Dr. Stevens, of New York, which, while conferring greater precision, I thought in these cases would impart obscurity.

1322 Olive St., St. Louis.

AN ACRANIA.

BY W. C. HALL, M.D., COFFEYVILLE, KAN.

Was called to see Mrs. D., October 13, 1890, who was *enceinte*, and was having throes of labor at full term when I arrived.

The first thing that attracted my attention was the tenseness caused by the unusually large distension of the abdominal cavity, which was so great that palpation failed to reveal the presence of any portion of the fœtus, and auscultation to reveal any heart-sound. The sensation to the touch was that of an enormously distended bladder.

Digital examination revealed the tense membranes slightly protruding through the dilated os, beyond which no fœtus could be felt. But ballottement being tried, the fœtus could be felt to strike against and rebound from the finger.

Fig. 1.

The membranes were thick and quite difficult to rupture, but when ruptured, the bedding was flooded with the immense quantity of liquor amnii.

Upon re-examination, a shapeless mass (which proved to be the base of the cranial vault), with four small projecting horns, presented, and the movements of the fœtus were distinctly felt until a few minutes before its birth.

The presentation was what would have been called an occiput, had the fœtus had an occiput.

No other instances regarding the labor were worthy of mention, except that the shoulders being so much larger than the presenting portion of the fœtus, the labor was prolonged by the shoulders hanging until all movements of the fœtus ceased before its birth was complete.

Fig. 2.

The child was an acrania, female, weight nine pounds, and was well developed in every part except

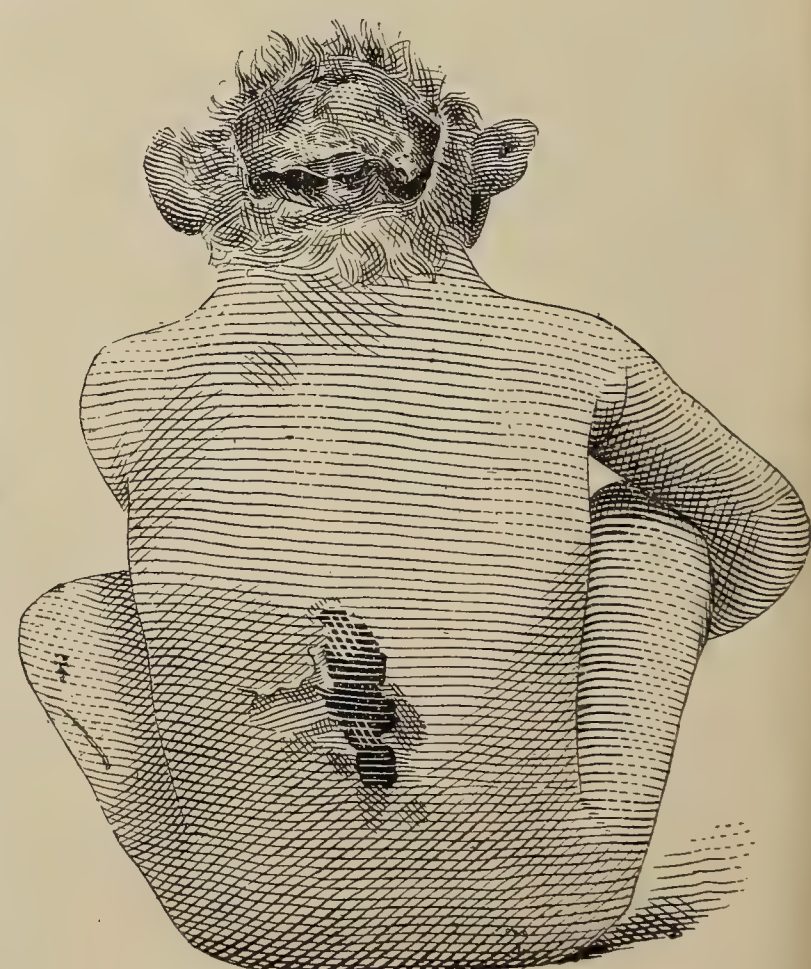


Fig. 3.

the cranium and its ears. As may be seen by referring to the accompanying cuts, the body, face, hands, feet and limbs are all well developed.

By referring to fig. 1 may be seen that the supra-orbital arches and nasal eminences of the frontal bones are developed.

In Fig. 2 may be seen that the larger portion of the temporal bones are developed.

In Fig. 3 may be seen that the parietal bones are absent, and the occipital is almost so; also the horny prominences, spoken of above, may be seen, two toward the front, which are probably projecting portions of sphenoid; and two back of and between the ears, which are projections of the mastoid portions of the temporal bones; between and slightly posterior to which, there is an opening leading directly into the spinal canal, from which project fibers of the spinal cord and its membranes, there being no intervening occipital bone.

All of this portion inside of the narrow strip of scalp (see Fig. 3) was covered by a thin film or membrane, very much resembling the dura mater, under which was a small quantity of substance, resembling a conglomeration of brain tissue and blood.

The mother is a primipara, is robust and muscular, with medium intelligence, had good health during pregnancy, and is unable to give any history of maternal impressions that might have had any tendency to produce such a result.

I have the above specimens fairly well preserved.

A NEW OBSTETRICAL FORCEPS.

BY J. A. ELSTON, M.D., ELSTON, MO.

I have the honor of presenting to the profession a new forceps, which will, I hope, be accepted as an improvement on the ordinary obstetric instruments. It has new features which, in my opinion, are strongly commendatory.

This forceps, whilst doing everything claimed for the Tarnier's Axis-Traction Forceps, accomplishes its work easily and with less exertion.

The chief feature of the Tarnier's forceps is, that it directs the child's head backward and downward in the line of the axis of the superior strait. Hence, it is called an axis-traction forceps. It does this admirably; the force is applied from below.

My forceps does the same, by a force applied from *above*, instead of from *below*.

Tarnier's Forceps has two traction rods attached to the lower part of the blades, just at their junction with the shanks.

The novel and chief feature of the forceps which I present consists in a depressor or lever, a sort of crutch, fitting by a slide in a groove placed above and in front of the lock. With one hand on the handle of the depressor, the head is guided downward and backward in the direction of the axis of the superior strait until it has descended to the lower part of the excavation in the axis of the inferior strait. Then the "depressor" should be removed and the labor terminated as in an ordinary forceps application.

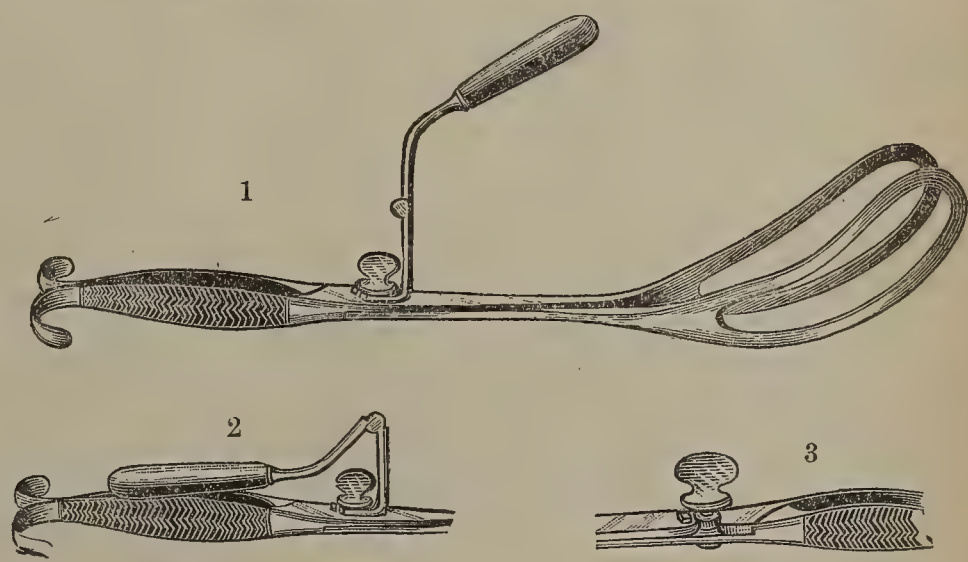
Without the depressor this forceps can be used as any other forceps.

The blades present a marked but gradual pelvic curve, allowing them to penetrate the excavation in the direction of the axis of the superior strait, and owing to this gradual curve, the lower part of the blades does not present the projecting "heels" or shoulders so generally found in ordinary forceps; these heels of the blades being a constant menace to the perineum in the final delivery of the head.

The greater cephalic curve of the forceps permits a firm hold of the head and guards against the slipping of the blades, when applied at the superior strait, as so often happens with other forceps, even with the Hodge's forceps, otherwise a very good instrument in ordinary cases.

Moreover, the stronger material used in the blades prevents their "springing," as in Hodge's and many other forceps. The lock being permanent it cannot be lost, as often happens in the hurry of an operation.

This forceps is especially designed for difficult cases, when the head, after entering the upper part of the excavation, shows no disposition to descend lower.



DESCRIPTION OF THIS FORCEPS.

1. Forceps with the Depressor in place. 2. The Shank with the Slide. 3. The Lock.

Total length 17 inches. Length of Fenestra 5 inches. Greatest width of Fenestra 1½ inches, narrowest ½ inch. Width of Cephalic Curve 2¾ inches.

PERMANENT LOCK.

Internal surface of the blades very slightly roughened to secure a better hold on the head. Handles roughened to get a better grip.

This forceps does in a simple way what the Tarnier's forceps does, and also in an easier manner, what is accomplished by Pajot's well-known method of pushing

the head into the excavation downward and backward by firmly seizing the upper part of the shanks of any long forceps; avoiding rotation at first; traction is accomplished after rotation, not before.

This forceps is manufactured by Aloe, 415 N. Broadway, where it can be seen.

THE PATHOLOGY AND SURGICAL TREATMENT OF INGUINAL BUBO.—Poelchen, of Konigsberg (*Archiv. f. klin. Chirurgie*, Bd. xl., p 556). The author calls attention to the fact that in the majority of cases incision into those glandular infiltrations constituting bubo are quite insufficient, and are frequently followed by prolonged suppuration and not infrequently lead to an unfortunate termination in the shape of involvement of the lymphatics of the lesser pelvis, perforation of the cavity of the hip-joint, and death through peritonitis, pyæmia, or hæmorrhage from eroded vessels. He quotes his own experiences in the total early extirpation of all chancres and suturing the wound immediately. In all cases immediate union within fourteen days was accomplished, and with the exception of a single case, there was no further infection of glandular tissue. He protests against relying upon the local application of iodine in the beginning of bubo and the employment of pressure. In the treatment of the affected glandular structures, he prefers a free longitudinal incision, and after extirpation, the wound cavity is permitted to fill with arterial blood, believing that under the blood clot rapid granulation tissue will develop.—*Brooklyn Med. Jour.*

SUTURE OF THE BLADDER.—In an elaborate article (*Annales des Maladies Org. Genito-urin.*, vol, viii., No. X.) upon the suture of the bladder, Dr. Delefosse arrives at the following conclusions:

1. Vesical suture should not be employed in at least two-thirds of the cases of hypogastric section, on account either of the object of the operation itself, or of the condition of the vesical walls, or of the interior of the bladder.

2. It is only absolutely indicated when there is an intra-peritoneal wound of the bladder wall; when a wound of the bladder is extra-peritoneal, vesical suture should be employed when the bladder and kidneys are healthy and the urine is normal.

3. In the great majority of cases of hypogastric section in which the use of the suture has succeeded, a partial suturing or none at all, with the employment of siphon drainage, would give equally good results.

Delefosse concludes his article by quoting, with approval, the opinion of Hache, who says that the dangers associated with complete suture are not compensated for by the advantages which may result from it.—*Am. Jour. Med. Sci.*

WEEKLY MEDICAL REVIEW.

TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this REVIEW, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the ST. LOUIS WEEKLY MEDICAL REVIEW, 520 Olive Street.

All letters containing business communications or refering to the publication, subscription, or advertising department of this REVIEW, should be addressed to THE MEDICAL REVIEW ASSOCIATION, 914 Locust Street, St. Louis.

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SATURDAY, MARCH 14, 1891.

REVIEW OF THE PRESENT STATUS OF THE KOCH TREATMENT OF TUBERCULOSIS.

It is plainly evident that the Koch method of treating tuberculosis is rapidly declining in the estimation of the leading members of the profession at all the great centers of medical thought and education—Europe and America.

At its birthplace, Berlin, where the enthusiasm following Koch's revelations, became so rapturous, overweening and, indeed, infectious, there is now a marked reticence. Professional opinion, when expressed at all, clearly indicates that it is very much divided as to the real merits of tuberculin.

It is impossible to properly sift the numerous clinical records that have found their way into print; but several contributions to pathological histology have just been made that are deserving of notice. Professor Rindfleisch has studied the effects of Koch's lymph upon tubercular deposits, and he concludes that tuber-

culin has unmistakable healing properties (*Deut. Med. Wochenschrift*). This is particularly noticeable in intestinal ulcers. He is unable, however, to verify Koch's assumption of tissue necrosis. According to Rindfleisch the lymph excites acute inflammatory changes around the tubercular nodules. There results a sharp line of demarcation between tissue which is hopelessly doomed, and that which is still capable of cicatrization. A tubercular deposit is a granuloma. Under lymph treatment the round cells of this granuloma tend to assume a spindle shape, the spindles become joined so as to produce fibers, and an ordinary fibrous cicatrix is finally formed. Thus, according to Rindfleisch, instead of necrosis and sloughing, cicatrization of tubercular deposits is invited by the lymph.

Theorizing on the possible effects of the fluid, Rindfleisch is willing to admit that, in a concentrated form, it may lead to necrosis. But in the ordinary dilutions employed in treating human patients, he suggests that immunity against tubercular infection may be hoped for, on the principle underlying ordinary vaccination.

Dr. Schimmelbusch, of Bergmann's clinic, has arrived at somewhat similar conclusions, although he has pursued an entirely different method of investigation. Instead of utilizing the pathological material of the dead-house, he has excised portions of skin and mucous membrane from living patients, in various stages of the Koch treatment. About thirty patients supplied him with abundant material for microscopical studies. Cocaine anæsthesia was used in performing the excisions.

He, too, was unable to find any evidence of tissue necrosis in the tubercular nodules. He points out that lupus should readily show this coagulation necrosis, or cellular disintegration, if such processes were really induced by the lymph. What he did find was merely an exudative inflammation around the tubercular deposits. Of course, he does not dispute that ulcerative destruction of tubercular nodules may be indirectly hastened by the lymph, if such destruction is already under way. The well-known tendency of tubercular infiltrations to break down may possibly be promoted by Koch's lymph, but it does not itself produce necrosis. It is an excitant of inflammatory action.

Lormenburg claims that pulmonary cavities do well under combined surgical measures and inoculation treatment. He speaks of the "cleansing" of cavities.

Professor Ehrlich and Dr. Guttmann have examined the blood of Koch patients, without result as to the finding of tubercle bacilli.

Virchow, in order to show his impartiality, demonstrated a further series of specimens at the last meeting of the Berlin Medical Society. Intestines were shown in which some tubercular ulcers were evidently healing, although other ulcers did not show a process of repair. But an interesting specimen was also exhibited, in which reparative action was evidently taking place at the time of death, although no lymph had been injected.

The latter observation is undoubtedly timely one, as the lymph enthusiasts are apt to forget that tuberculosis has been found amenable to treatment before the advent of tuberculin.

It is unnecessary to make any further comment on this, the latest phase of Koch's discovery, than to repeat that the interesting subject is not yet ripe for final judgment.

Prof. Schrotter, the eminent laryngologist at Vienna, gave utterance to the following language, expressive of his own experience with the Koch treatment of tuberculosis, in a public lecture before a large audience in that city: "We have, so far, been unable to observe a cure, or, what is more, improvement in a single case. The action of the remedy cannot be termed curative; the changes observed by me have been of a very unfavorable character, new ulcerative processes being set up in many cases. The dangers cannot be concealed, and among them we must reckon infection of distant organs. We cannot with good conscience recommend the method to any patient."

The Vienna correspondent of the New York *Med. Record* adds: "That this is certainly the most decidedly public stand yet taken against the method by any man of eminence here."

In France Koch's lymph has been violently denounced; scarcely a single note of praise is heard in the general chorus of utter condemnation.

Reports from London clearly indicate the growing adverse feeling among those experimenting with the lymph there. Mr. Jonathan Hutchinson, in a lecture upon lupus, said that no cure of that disease by means of Koch's lymph had occurred in London. The clinical observations of Mr. Malcolm Morris, Dr. Pringle, Mr. Watson Cheyne and others express themselves as having found the ultimate results of the treatment to be far from satisfactory.

Prof. Ewald has made a report upon his experiences with the lymph in the Augusta Hospital, from which it appears that fourteen cases had undergone the treatment at that establishment. The total amount of lymph used was 32,000 milligrammes. Ewald sums up as follows: "Gentlemen, if I am openly to express my conviction, I must say that I have not yet seen a single case that I could safely call cured."

Dr. A. Jacobi, New York City, is the first to appear in print in this country with a carefully recorded series of cases, covering his own clinical observations with the inoculation of the lymph.

The report, it is evident, was hastily prepared, and as the period of time during which these observations were made covers but about two months, the deductions, therefore, cannot be considered particularly instructive. The notes accompanying the reports do not, however, manifest any special enthusiasm.

Prominent professional opinions in New York are summarized in the following paragraphs:

1. The lymph is not a diagnostic.

2. The lymph is not a specific for consumption or any other tubercular disease.

3. If the lymph has elective affinity for tubercular tissue it exhibits a similar idiosyncrasy in other diseases, and, in fact, no one has thus far proved whether it has this elective affinity or not.

The results of the experiments in this city, where there have been about 350 persons under lymph treatment, have been to make even the most enthusiastic practitioners cautious, and men who were conservative before have decided that the cure for consumption is quite as far beyond the reach of the profession as it was before the lymph was known.

Shall We Castrate the Husband or Ligate the Vas Deferens?

The series of letters to Dr. Fenger from Professor Senn, written during his "Four Months Among the Surgeons of Europe," embraced some tolerably sharp criticisms, and no part of them created more profound sensation, perhaps, than that which related to Mr. Lawson Tait and his practice of removing the ovaries for the purpose of preventing pregnancy.

It was following the famous surgeon's cogitations over one of these operations that the following startling utterances were written: "To me the indications which induced Mr. Tait to remove the ovaries and tubes in this case afforded abundant food for serious thought. There can be no question in my mind, and in the mind of any one who has the well-being and happiness of his fellow-beings at heart, that it was not desirable that the woman should again be exposed to the dangers of another pregnancy; but as a practical American it occurred to me that it would have been wiser to resort to the less hazardous procedure of unsexing her husband, which would have certainly secured the same immunity, at a minimum risk of life, and, morally, would have been more justifiable. This poor creature had suffered untold agonies, and why submit her to such a serious operation to procure sterility, when the same object could have been reached without any danger to life by unsexing the other party."

This shocking suggestion, and, too, coming from an American, grated so harshly upon Mr. Tait's refined sensibilities that ever since the doors of the Tait establishment have been securely barred against all Americans.

It may be remembered that Thos. Robert Malthus, the scientific expounder of the principle of population was a native of England, and Mr. Tait's outraged feelings may be somewhat mollified toward the wicked Americans when he is reminded that this good Britisher (one of his own countrymen) conceived the idea of ligating the vas deferens in order to destroy fruitful marital relations. Latterly, however, like Mr. Tait, there is a pretty universal disposition to secure the Malthusian idea of population, as well as to prevent conception for other reasons, by castrating the women. We presume that Mr. Tait's method will prevail so long as the practice of surgery is confined wholly to the male members of society. Malthus' theory was that the realization of a happy society will always be hindered by the miseries consequent on the tendency of population to increase faster than the means of subsistence." Many women are willing converts to the Malthusian theory. Many of the sterner sex, too, are heartily in accord with the doctrines taught by that learned Englishman, and cheerfully reduce the theory to practice, but of course not by the method proposed by Malthus. One of the later disciples, Dr. F. Deppler, who is evidently practising tolerably extensively in the direction of staying the increase of population by practising the modernized methods. Hear what he says regarding the effects of castration on women, and its usefulness in promoting his conception of Malthusian ideals:

"The sexual desire remained, and was the more pronounced the earlier in life the operation was performed.

"The operation offers no impediment to marriage; three of the author's cases had married and had lived happily with their husbands for years. A marriage with a castrated woman is the ideal Malthusian marriage, and the only way the Malthusian idea can be carried out without endangering the health and happiness of the woman."

Professor Senn.

This eminent surgeon has recently accepted the chair of surgery in the Chicago Medical College. The alliance is peculiarly appropriate, the pioneer in advanced classical surgery becoming associated with that school, which in this country, took the initiative in elevating the standard of medical education by inaugarating the three-term requirement. We invoke for the distinguished Professor, in this new relation, a career of honor and success commensurate with his great deserts.

St. Louis Medical Society.

The proceedings of the St. Louis Medical Society have been published during the present winter in Chicago, Kansas City, Topeka and Cincinnati. In St. Louis the Proceedings of each regular meeting appear in the pages of the Weekly Medical Review on the morning of the second Saturday following.

The discussions upon all scientific topics are carefully revised before they are issued for publication, by the official editor, Dr. Wm. Dickinson.

Our judgment is that the work of the Society, as it is now being published, compares quite favorably with that of any other society in the country.

Any member having matters of interest to the profession in general should avail himself of the opportunity thus offered to reach hundreds of its members by presenting the same before the Society—at one of its regular Saturday night meetings at Polytechnic Building.

Medical Colleges.

During the present month commencement exercises will be held at the seven medical colleges in St. Louis.

The examinations of the candidates for the degree of M.D., together with the arrangements for the exercises, are actively going on at this time. About two hundred and eighty diplomas will be conferred by these schools.

How far the present annual issue is above the preceding ones can only be a matter of conjecture.

We are confident of one thing, that if the improvement in teaching is commensurate with the increase of professors the present classes are certain to occupy a position far above those turned loose in times past.

Changes in the Management of the City Institutions.

We have heard the rumor in several quarters that changes will be made in the management of the city institutions.

If this is the intention it is to be hoped that when our Mayor casts about for medical gentlemen to fill the offices of the three big hospitals of the city, that the selection may fall upon representative members of the profession. We mean upon persons who are free from political entanglements; persons who are representatives of the progressive element of the profession; those who may be able to hold themselves aloof from the scheming shysters of the profession. Let the appointments, Mr. Mayor, fall upon those possessing a reputation for purely medical and scientific attainments, gentlemen who may be considered deservingly fitted for the position without the necessity of handicapping their administration with the medico-political spoilsman.

We beg to submit that you will honor the profession most by so doing, and it will, in return, honor you all the more.

Valuable Contribution.

Prof. Senn, of Milwaukee, has kindly furnished the Review with the report of the removal of an Intra-Peritoneal Myo-Fibroma of the anterior wall of the rectum weighing 12 pounds, from a woman, 45 years of age, with complete recovery.

The extreme difficulty of a diagnosis and rarity of the case together with the distinguished source of the report will commend it to the careful perusal of the profession.

It is received too late for the present issue, but will appear next week.

Physicians and other readers of the Review should not fail to examine its advertising pages, where much that may prove of interest will be found.

MEDICAL ITEMS.

The Southwestern Ohio Medical Association will hold its Fourth Semi-Annual Meeting at Hamilton, April 2 and 3, 1891.

Dr. Sarah Post recommends that vaginal douches be not employed in the treatment of unmarried women, as they are likely to excite sexual orgasm.—*American Journal Obstetrics.*

C. L. Bernays, druggist, brother of Prof. A. C. Bernays, has accepted the position of prescriptionist at the Grand Avenue Pharmacy, corner Grand Avenue and Olive Street. The popularity of that establishment will certainly be greatly enhanced by this new acquisition.

Beaumont Hospital Medical College.—The annual commencement exercises of the Beaumont Hospital Medical College will take place at Memorial Hall, on Wednesday evening, March 18, 1891. The Valedictory Address will be delivered by Prof. Spencer Graves, of the Faculty.

Prof. Von Bergmann will deliver the opening address before the Twentieth Annual Meeting of the Congress of the German Surgical Society at Berlin, on April 1. The subject, "Koch's Treatment of Tuberculosis" will command very general interest, as by that time its status will have been pretty clearly established. Patients and specimens illustrating the effects of the new method will be exhibited in the University Clinic on the forenoon of Thursday, the second day of the meeting. Those wishing to take part in the proceedings are requested to communicate with Prof. Gurlt, 6 Keith Strasse, Berlin, W. Prof. Thiersch will preside.

Reports of Clinics, St. Louis City Hospital.—Clinics are held at this institution daily, from 2 until 4 o'clock in the afternoon. Medical clinics from 2 to 3, and surgical clinics from 3 until 4 o'clock.

The lectures by the respective representatives of the different medical schools in St. Louis are made exceedingly instructive, the subjects presented covering the entire field of clinicial medicine and surgery.

The aseptic detail is carried out fully in all surgical procedures.

The Review will, from time to time, publish reports of clinical lectures delivered there, and thus enable its readers to learn something of the character of the work done at this immense institution.

Santa Barbara's Climate.—Our meteorological correspondent at Santa Barbara furnishes the following summary of the weather at that favorite resort, for 1890: The mean temperature of the year was 60.2°. On 41 days the temperature rose above 80° in the warmest part of the day, and on 6 it fell below 35° at night; while there were but two nights when it did not

fall below 65°. The highest temperature was 98°, and the lowest 33.5°. There were 238 clear days, 47 fair days, and 80 cloudy days. There were 21 days when the rainfall was over one-tenth of an inch, but only 8 that could be called rainy. The mean relative humidity was 70, and the average velocity of the wind 3.3 miles an hour, while the greatest movement in any one day was 243 miles or less than 10.5 miles an hour.—*Occidental Medical Times.*

Tennessee State Board of Health.—The active, industrious and painstaking Secretary, J. Berrien Lindsley, M.D., of Nashville, Tenn., presents us with a very complete report of the sanitary condition of the State during the month of January, also mortality and meteorology. The month of January was characterized by a rather mild temperature, an excess of rainfall, and a large percentage of cloudy and rainy days, with high winds at intervals. Altogether it was a disagreeable month. The mean temperature was 39.5°. Ice was reported on 17 days. At Memphis on the 31st 3.96 inches of rain fell in 24 hours; at Trenton, 4.17 inches; at Covington, 4 56 in 30 hours. Snow fell on 13 days. At Franklin, 4 inches of snow remained on the ground for 2 days.

The Prevention of Narcotic Inebriety.—At a meeting of the American Association for the Cure of Inebriety, held February 18, at the Academy of Medicine, New York, Dr. J. B. Mattison, of Brooklyn, offered the following preamble and resolutions:

Whereas, A leading cause of morphinism, chloralism, and cocainism is the facility with which morphine, chloral and cocaine can be procured from pharmacists; and

Whereas, The refilling of prescriptions containing these drugs is a potent factor in the rise and growth of these diseases; therefore, be it, as the sense of this Association,

Resolved, That no retail druggist should sell morphine, chloral or cocaine, except on a physician's prescription; and

Resolved, That no prescription containing morphine, chloral or cocaine should be refilled except on the written order of a physician.

These were unanimously adopted, and a committee consisting of Drs. Mattison, Crothers and Wright, was appointed to secure legislation along the line of the resolutions.

The Health of Memphis.—The Annual Report of the Board of Health of Memphis, through its President, Dr. W. B. Rogers, shows, on an estimated population of 60,000, a death rate of 22.4 per 1,000. The mortality is greater among the negroes, who show a death rate of 26.14 per 1,000, than among the whites, who have a death rate of 19.4 per 1,000.

Among the many pertinent suggestions made, none is more important nor so far reaching as that concerning the extension of the sewer system to the new territory, which is being rapidly added to, and becoming thickly populated portions of the city. The city authorities need only recall the scenes of pestilence and disease of a decade since, and the good results which followed in the wake of sanitary improvements then instituted, to appreciate the dire effects of bad, and the benefits of good, sanitation. Good sewers and pure water are the foundation of the prosperity of Memphis to day, and when either is neglected the city will retrograde, and its every interest will feel and show it.

That freedom from danger often begets lethargy should be constantly borne in mind, and we should remember that the utmost diligence will be required at all times to ward off an unsanitary condition of the city. Especially important is this warning at the present time, when from various countries, with which ours bears intimate commercial relations, come reports of the prevalence and spread of the worst of epidemic diseases—cholera.—*Memphis Jour. of Med. Sci.*

Suit for Damages on Account of Pain After Amputation.—This suit was brought for damages against a railway corporation, the result of an accident which was the occasion of the amputation. The case was heard in the courts of New York State and was carried up to the Court of Appeals; the defendant was the Delaware, Lackawanna & Western Railway. The action was brought to obtain compensation for damages, because of a "special kind of pain" complained of after the amputation of an arm, namely, a pain which is located in the member that has been cut off. The plaintiff was allowed to testify on the trial that he had suffered continuous pains, seemingly located in the amputated hand and arm, and on appeal it was argued that such testimony should not be allowed. The appellate court has recently decided that this objection was not well taken, and that the plaintiff's evidence was competent. One of the points raised by the defense was that this pain in the hand and arm of the plaintiff was purely imaginary and a delusion, and that, because the arm had been cut off, there could not possibly be any pain located therein. The Court of Appeals meets this contention by means of the following answer from the standpoint of law: "The reason urged in support of the exception is that such pain was imaginary and a pure delusion and was not a direct or a natural result of the injury received; the plaintiff had testified that this was a part of the painful suffering he had endured after the accident and the amputation of the arm, and whatever was its nature, if his testimony was true, the sensation was that of pain and the result of the injury. Pain is but the sensation of a condition that produces it, and the fact that it seemed to come from or to reside in the hand, as if its connection with the body remained, is only descriptive of the pain he suffered. It was no less the subject of consideration because the location of it was deceptive."—*Philadelphia Med. News.*

BOOK REVIEWS.

A System of Oral Surgery: Being a Treatise on the Diseases and Surgery of the Mouth, Jaws, Face, Teeth and Associate Parts. By James E. Garretson, A.M., M.D., D. D. S., President of the Medico-Chirurgical Hospital, and Emeritus Professor of Oral and General Clinical Surgery in the Medico-Chirurgical College; Dean of the Philadelphia Dental College; Surgeon in Charge of the Hospital of Oral Surgery, etc. 1890. Octavo, pp. 1364. Fifth Edition, Thoroughly Revised, with Additions. Philadelphia: J. B. Lippincott Co.

This work probably occupies a unique position in medical literature; without it, there would undoubtedly be a 'long-felt want.'

As claimed by its title, it is a *system* of the surgery of the mouth and associate parts. It is, therefore, comprehensive, invading even the field of the dentist; as the author says, "It includes it (dentristry) in a purely surgical sense, thus assuming dentistry to be, not a profession in itself, but part of medicine at large; such assumption being founded on an experience which clearly enough exhibits that where medical knowledge is lacking, dentistry is of very little use to a community."

The generous number of illustrations, of both woodcuts and steel plates, forms a most commendable feature of the work; and they have received the amount of attention as to correctness in detail, and beauty of execution, usually bestowed on the more mechanical parts of its productions by the Lippincott Company.

The portion of the work devoted to plastic surgery of the nose, mouth and face, will be found of greatest value to the practical surgeon; the various methods of rhinoplasty, the Italian, the German, the Indian, and the English, are especially well depicted by the numerous steel engravings embraced; and these are fully complemented by the text pertaining to the same subjects.

The operative methods of treating neuralgia and other nervous affections of the face are considered at gratifying length, and in a practically beneficial manner.

1006 Olive Street. Bransford Lewis, M.D.

Principles of Surgery. By N. Senn, M.D., Ph.D., Milwaukee, Wis. Professor of Surgery in the Chicago Polyclinic; Attending Surgeon to the Milwaukee Hospital; Consulting Surgeon to the Milwaukee County Hospital and to the Milwaukee County Insane Asylum, etc. 1890. Price, $4.00 net. F. A. Davis, Publisher. Philadelphia and London.

The great strides that have been made in the last few years in bacteriological knowledge, and in the pathology of surgical affections dependent on the ubiquitous microbe, together with the no less important, though perhaps less phenomenal advances in the pathology of non-microbic surgical diseases, have paved the way for a warm welcome for a modern treatise elucidating the present status of the principles of surgery. And considering the pre-eminent standing of its author with his fellow surgeons and students, we can feel no doubt as to the heartiness of the welcome that awaits this particular exposition of the subject.

Dr. Senn has done a large amount of the original work that has been effectual in formulating the principles of current surgery, so that it is therefore additionally appropriate that he should be the conveyor of this instruction to the progressive practitioner and student.

On the very first page we meet with an evidence of the change of views from a position held up to a very late period, viz., that inflammation is necessarily incident to regeneration; that it is the important factor in the repair of the results of trauma. "Regeneration and inflammation are distinct conditions, which should no longer be confounded or considered from the same etiological and pathological standpoint."

And in illustration of the reversal of old plans of antagonizing inflammation, together with the reasons for such emphatic modification, the author's remarks on blood-letting, etc., are apropos: "An erroneous conception of the nature and tendencies of inflammation has for centuries induced the ablest teachers and practitioners to advocate and practice what they termed the anti-phlogistic treatment of inflammation. This included blood-letting, cupping, leeching and cathartics. It was urged that as inflammation was attended by an increase of heat, swelling and redness, such remedies should be employed as would reduce arterial tension. An unimpaired *vis a tergo* is one of the best means to prevent stasis within the inflamed capillaries, and practical experience has shown that all remedies and agents which diminish the intra arterial tension only diminish the prospects for a favorable termination of the inflammation. * * * While venesection in the treatment of inflammation has been discarded, the direct abstraction of blood from the inflamed part has proved a useful resource. * * ° Leeches should never be used, as infection from this source has frequently resulted disastrously. The scarification used for cupping is difficult to keep aseptic, and the number and depth of the scarifications to be made are not under the control of the surgeon, and for these reasons this instrument has only an historical interest and antiquarian value. The scarification should be made with a sharp scalpel, and the bleeding encouraged with hot water."

In the chapters on Pathogenic Bacteria, Necrosis, Suppuration, Septicæmia, Pyæmia and Tuberculosis, we find the material that will be held in highest esteem; the bacteriological aspects of these affections are liberally dealt with, as would naturally be expected of an author who has lately presented an excellent work on Surgical Bacteriology.

The principles of surgery, as expounded by Dr. Senn, are such as to place the student in the independent position of evolving from them methods of treatment; the

master of the principles readily becomes equally a master of practice. And this, of course, is really the whole purpose of the volume.

1006 Olive Street. BRANSFORD LEWIS, M.D.

The above books can be obtained from J. H. Chambers & Co., 914 Locust Street, St. Louis, Mo.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, February 28, 1891, the President, L. BREMER, M.D., in the Chair.

DR. BROOME.—In the absence and at the request of Dr. Cole presented an abscessed portion of a liver affected with supposed tuberculosis, in a boy æt. 11, the history of which dates back two and a half years. The case began with symptoms of ordinary typhoid fever. A swelling developed in the region of the right lobe of the liver. About six months later a small abscess formed and was opened just to the right of the gall bladder, from which a discharge of pus continued for a period of a year and ten months. An examination detected a tumor, somewhat larger than a fist, on the under surface of the right lobe of the liver, and it was impossible, by external manipulation, to determine whether the tumor was of the right kidney or the liver. The urine was normal. The probe, introduced into the fistulous tract, led under the liver and towards the right; the diagnosis was tumor of the liver, either degenerating, malignant, or a conglomerate tubercle of the liver. Syphloma was excluded. An external incision was made parallel to the twelfth rib, begining at the external border of the externus and extending down to the quadratus lumborum muscles, cutting the fibers of the latter. The tumor found, involved about one-third of the right lobe; this was removed by the scissors, blunt instruments and fingers; a portion of indurated tissue at the base, which could not be removed, was curetted. The temperature before the operation was 101° constantly; since the operation it has been normal excepting a rise due to suppuration, this being the twelfth day since the operation. The boy is doing well. The only history is, the boy is an orphan, has one brother; the parents having died of some lung trouble.

The second specimen is a degenerated gall-bladder, which was removed by cholecystectomy.

The first case suggests two very important subjects for discussion; first, tuberculosis of the liver; and second, the limitations of surgical therapy of the liver.

In respect to the first, there is present in the centre of the mass a necrotic portion that has undergone, apparently, the characteristic caseous degeneration.

Respecting the second subject suggested, experience has demonstrated that about one-third of the liver may be removed without fatal results; in this case all of the affected portion was removed.

If this is a tuberculous tumor of the liver, it is the first, for which an operation has ever been done for this disease. Pending microscopical examinations, further discussion was postponed.

DR. PREWITT read a paper detailing a case of

CHOLOCYSTOTOMY.

DR. FRANK GLASGOW.—I would like to ask Dr. Prewitt if any evidences of injury, or ulceration of the gall-bladder, suppuration or anything of that kind were found. I understood the doctor to say, he concluded there were no other stones present because of the single fact that there was no jaundice. I do not appreciate the validity of his deductions.

DR. PREWITT.—I did not say that. I said inasmuch as there was no jaundice and no other stones could be detected; and as there were no facets on the stone found, it was reasonable to presume there were no other stones nor were there adhesions.

DR. GLASGOW said.—In the majority of gall-bladders stones are found, both with and without having given evidences of their presence, and in a great many instance symptoms of stone are presented, in which it is difficult to find them, since they may not be in the gall-bladder at all; they may be in the cystic duct; in the common duct; or just at the entrance of the duct into the duodenum. A case came under his care some years ago which impressed him with this fact. In that case there was no jaundice. He learned, however, after death, that the tools had at times been of a clay color; and that there had been incessant vomiting, gastric catarrh. The speaker thought the case was one of cancer near the pyloric orifice; the patient had emaciated considerably. One day he was called very suddenly; the statement being made that the patient was dying. He could not conceive the cause, unless a perforation had taken place. On arrival he found the patient in a state of collapse, from which she never revived. On post-mortem a gall stone was found protruding into the duodenum; but none in the cystic duct. This stone had caused her death, and by ulceration, consequent leakage, though no opening could be found; everything was bound down by old adhesion; but there was no doubt that leakage had taken place. How is the flow of bile now, doctor?

DR. PREWITT.—It is all right, except there is a little leakage externally, not much.

DR. GLASGOW.—The canal of the common duct consequently is patulous still; in cases where the duct is closed and the gall-bladder is opened, there is very much discharge.

DR. BROOME said.—After a diagnosis of gall stone is made, its removal is the only thing to be done. The only question involved is, how it should be done. There are two methods, one is the ideal; the other, the open treatment, after the operation has been made. The one extreme is simple, the ideal cholecystotomy; by making an opening through the abdomen and into the gall-

bladder, removing the gall stone, then stitching up the incision, and dropping it back and closing the abdominal wall. The other is opening the gall-bladder removeing the stone, and then stitching the gall bladder to the abdominal wall and leaving both incisions open. This mode has been modifed, by stitching both the gall-bladder and abdominal incisions together;uniting them as one wound. This appears to me the better plan,because some patients complain quite as much of the offensive fistula left by the open method, as of their sufferings prior to the operation.

Dr. Dorsett said he had had two or three cases of this kind, in which an operation had been made, but in no case had the fistula closed. One case in particular gave promise of closing and efforts were made to promote it, by freshening the edges and drawing them together; but it did not close. Probably it is advisable to leave it open, for the concretion of the biliary calculus being due to a peculiar diathesis, even if the fistula should be closed, and the gall-bladder sewed up and dropped back into the abdominal cavity or attached to the abdominal wall, there is no certainty that another may not form, necessitating for its removal, the reopening of the walls when much cicatricial tissue might be encountered, and the probabilities of a successful result be diminished.

Dr. Broome thought the gall bladder would not become impacted a second time; he did not know of such a case on record. The modification mentioned meets both indications; that is, unite the gall-bladder to the wound in the abdomen, thus closing both; and should another stone form, a simple incision would relieve the difficulty. The method of closing both wounds is far better, and is being adopted among surgeons, particularly in Europe. The establishment of the fistula is an achievement neither scientific nor rational, nor in keeping with good surgery.

Dr. Prewitt said in reply to Dr. Glasgow.—It not unfrequently happens that surgeons open the gall-bladder and fail to find a stone. This may be due to the fact that there is no stone, and that the obstruction is due to some other cause; or it may be that the stone is lodged down in the duct or tube, and is not felt, but overlooked. If a given case be one of gall-stone colic, and the patient suffers with jaundice to a marked degree, it is very evident that there is a stone in the common duct; but if the patient has gall-stone colic only occasionally, without the occurrence of jaundice, the evidence is presumptive that the gall-stone does not remain permanently in the common duct, or that it does not block it up completely, as was clearly the case in this instance. In this case it was reasonably certain there was no other stone, because the bile passed through the duct before the operation; nor was there jaundice, though it had previously occurred. The duct was carefully examined but no stone was found in it. The absence of a facet on the stone removed is pretty good evidence that it was a solitary stone. The speaker said he fully agreed with what Dr. Broome had said. In this case the opening in the gall-bladder was closed, and then was sewed all around to the peritoneum. Obstruction of the gall-duct, long continued, induces distention of the bladder; he had taken by aspiration a pint and a half of material from a gall-bladder in this manner. He aspirated on one patient twice, but she refused to be operated on again. She, however, afterwards had three or four gall stones removed, and is now perfectly well. In Dr. Glasgow's case the gall-stone certainly did not block up the common duct until just prior to her death; then it did block it, and she suffered collapse and died. The absence of jaundice does not prove that the stone was not there; it simply means it had not blocked the canal; she, therefore, had no jaundice. Fifteen or twenty years ago he saw the case of a gentlemen who had never previously been sick; he was attacked with gall stone colic; great swelling and violent pains were present in the region of the gall-bladder. He quickly passed into a state of collapse and soon died. On post-mortem the gall-bladder was found as full of stones as is a boy's purse of marbles. He had no jaundice because there had been no obstruction. A woman was brought to him, about twelve months ago, suffering with inflammation of the gall-bladder; was jaundiced and almost moribund. He operated upon the gall bladder, and left a fistulous opening. He subsequently made a laparotomy to see if there was a gall-stone in the common duct; manipulated it, but failed to find one. The incision was closed, and the bile immediately commenced to pass by the bowels. The manipulations relieved the bile duct, and the fistulous opening has ever since continued to diminish in size, and there is no reason why it may not close entirely. Mr. Tait has reported a similar case; he had operated and failed to find a stone, but manipulated the gall-duct, and the patient was relieved. He thought the conclusion in this case legitimate, that the absence of jaundice indicated no obstruction of the duct, and the failure to find other stones in the duct or gall-bladder, and the absence of facets on the stone removed, constitute almost conclusive evidence, even demonstration, that no other stone was present.

Dr. Barclay said a case came under his care which shows the resources to which a man in desperation from ear disease may resort. A man, living in the country, attacked with acute otitis media in both ears, consulted a practitioner there; he gave him an aperient and ordered him to take large doses of quinine. When he was told that the patient's suffering was increased, he said the man did not take large enough doses, and directed that he should take teaspoonful doses. The man suffering untold agony, deprived of sleep for two nights, went to the well, and from a bucket of the coldest water he took a dipperful, and poured the water, first into one ear, and then into the other. This he continued for several hours at a time, for two nights and a day, when finally he came to the city and related his remarkable experience. The cold water relieved the

pain until it became warm in his ear, but gave no permanent relief. He is still under treatment.

Dr. Bremer said.—I would like to add a case in harmony with the one reported by Dr. Barclay, in which, however, the therapeutical agents used were not, seemingly, so outrageous, but yet were followed by a fatal result. I refer to the deadly syringe. Several days ago I saw, in conjunction with another gentleman, a case of a woman, æt. 34, who, a year ago, suffered from diffuse symptoms of nervous disturbance. A diagnosis was made at that time of nervous perturbation. She was treated by electricity by a physician in this city, got better and went home again; however, according to the testimony which was elicited at the sick bed, she had crazy spells, and acted sometimes like a maniac. Several weeks ago, suddenly, without any antecedent fever, an abscess discharged through the ear. The very considerable headache, experienced previously on that side of the head, was relieved. The family were instructed to cleanse the meatus by gently syringing. How faithfully the injunction to do it "gently" was observed, nobody knows; but when the last physician saw the case there was high fever, the temperature being 104°; she passed her evacuations into the bed, and the superficial and deep reflexes were abolished; she speedily passed into a semi-comatose condition and died. A diagnosis was made of meningo encephalitis, probably arising from an abscess in the middle ear, or perhaps a subdural abscess; and it was thought, with a great amount of probability, that the purulent matter had been driven into the dura, soft and friable at a certain place, perhaps into the subdural space, by which a meningo-encephalitis was set up. Another case, of a gentleman seen two weeks ago, also illustrates the great danger sometimes consequent upon injections in the nose for catarrh. He was suffering from a moderate degree of fever, temperature 101° or 102°, and with delirium of quite a peculiar nature. It was the delirium of typhoid fever, that so very frequently seen in early stages of delirium tremens, or in cases of alcoholics, who are passing into a state of dementia. This gentleman did not know where he was, and had no correct appreciation of time, but talked rationally upon all subjects. From the fact that this gentleman had been treated for catarrh, and by a competent gentleman, who had injected fluid into the nose, it is not at all improbable that the inflammatory process crept from the nose through the cribriform plate to the membranes of the brain; and in that way the meningo-encephalitis, of a very mild type was produced. Such meningo-encephalitides are sometimes produced. The speaker well remembered the first case of this kind which he saw in Zurich, where a post-mortem was made. The man entered the hospital with inflammatory rheumatism, having at the same time a very severe cold, with running from the nose. This man was treated for rheumatism, his symptoms became gradually worse and he died. When the post-mortem was made, a meningo-encephalitis was found, and the lateral ventricles were filled with pus. A fearful and ominous impression was made upon the pathologist, who at that time presided over the pathological laboratory. He had a cold himself at that time and headache, and felt sure that he would be a victim of the same symptoms, and that the inflammation would pass to his brain. The attention of the medical profession has been called time and again to the danger of syringing the ear in aural disease. I do not believe it is a good or safe practice.

Dr. Williams inquired why the last speaker attributed this trouble to the use of the syringe.

Dr. Bremer replied his reading led him to believe that it was very frequently productive of encephalitis in cases of abscess of the ear, especially when involving the bone. Bergmann, especially, has charged the ear doctors with being responsible for a great many bad results. Many specialists in ear diseases have, therefore limited the use of the syringe very materially. The lady was doing perfectly well; the abscess wall had given way, and immense quantities of pus were discharged; then the syringe, with some warm antiseptic fluid, was used for a few days, after which there was high fever, with encephalitis; and the inference is that by means of the syringe, the infectious material had been injected into places where otherwise, in all probability, it never would have penetrated, and consequently fatal results followed.

Dr. Williams thought the president accused the syringe improperly. I interpet the symptoms in this way. An abscess had been forming in the tympanitic cavity for weeks or months—an indefinite time—during which time the bone, separating the cavity of the drum and the brain cavity, became involved, possibly necrosed, so that the morbid process extended into the cerebral cavity, and excited inflammation of the membranes of the brain. In all probability the woman would have died of meningitis, if the syringe had not been used at all. If in using the ear syringe, great violence had been used, harm might result; but it is quite difficult to do harm in the ear with the ordinary ear syringe. The use of cold water might do harm, but the ear syringe itself has been unreasonably accused of producing meningitis due to other causes. I have used the syringe a great deal and have never seen encephalitis induced.

Dr. F. J. Lutz said he was heartily in accord with Dr. Williams; for we must not judge and say *post hoc, ergo propter hoc*; still when we see these conditions following the use of the syringe and the nasal douche, it is very natural to infer that they are important factors in giving rise to them. He had in mind two unfortunate cases, illustrative of what the president had said, in regard to the use of the syringe and douche. Indeed the last patient whom he had seen this evening is an illustration. He is an old gentleman, æt. 75. About the beginning of January he consulted an aurist for his ear, containing hardened ear wax, who injected with an ordinary ear syringe the incredible quantity of a gallon of water into the old gentleman's ear, each session con-

suming an hour and a quarter. This manipulation was repeated four or five times. A purulent inflammation of the middle ear followed the removal of the inspissated cerumen, for which the extensive use of liquid antiseptics was a part of the treatment. A violent meningitis was set up, followed by pneumonia; on day before yesterday he became hemiplegic and is now moribund. Of course it cannot be demonstrated that the use of the water was the cause of his trouble, but following so closely, it is not a far fetched conclusion that there is some causal relation between the two.

Another instance was the case of a woman, about 35 years of age, of a very robust constitution, who had always had fair health. Being afflicted with a nasal catarrh, she consulted a catarrh doctor, who ordered a nasal douche of lukewarm water, which was used from a reservoir hanging at a great height. An inflammation of the frontal sinus was set up, followed by meningitis; she became maniacal, and in the course of four weeks, succumbed to the meningitis. These two cases can not fail to impress one with the possibility of the syringe and douche doing harm; they seem to corroborate what the president has said, respecting the dangers attending the violent and unskilled use of these instruments. I was present and witnessed the last ten minutes of the performance.

Dr. Loeb said.—There are exaggerated cases, doubtless, such as my friend, Dr. Lutz, has reported, in which bad results are produced, because neither the patient nor the doctor exercised due care and discretion, but such cases must be regarded as exceptional. The douche can exert but very little influence ordinarily in the production of cerebral trouble. The question had long been agitated, whether or not ear trouble was ever occasioned by the douche; and while he had had occasion at various times to fear such a sequence, the statement of Prof. Buck, in the *Record*, two or three months ago, puts the matter almost at rest. He states that in 2,000 cases treated by himself at his clinic, the complication was exceedingly rare. Still, in cases of atrophic rhinitis, the speaker said he was very careful in the use of the douche, and never used it after the manner usually described. Nearly everybody can afford to procure a spray apparatus; with it the nose can be cleansed much more nicely than with the douche; but if too poor to get one, he is allowed to sniff water into his nose from his hand, first directing him to have the antiseptic solution warm. In that case the danger is at a minimum, and he had not observed any difficulty. In his office he did not use the douche, and very exceptionally the spray, using instead a pledget of cotton on a probe, which is the simplest instrument for cleansing the nose. His applications to the nose are no longer in the form of a watery solution, but almost entirely of liquid alboline as a menstruum. The medium of transmission, suggested by the president, must certainly be very rare, for it is with the utmost difficulty that we can pass beyond the middle turbinated bone, and much more so to get beyond the superior turbinated bone.

Dr. Funkhouser said he had had a very interesting case—a classical one, in which the patient had ear disease—caries of the temporal bone and metastatic abscess, etc. No syringe had been used for some months prior to my attendance; a physician of this city had treated him for ear disease, but had made no injections, but had made applications to the bone. When he saw the case the patient complained of pain in the head, but no pain in the ear; the case simulated one of malaria; there was a periodicity of the fever, and after the first chill, the speaker suspected some ear trouble as the cause of the symptoms. In about seven days after the first chill the patient had a second one, and finally had symptoms of metastatic complications, inflammation of the knee-joint; this was subsequently opened and syringed out. The patient eventually died of pyæmia, but before his death symptoms of implication of the dura mater of the brain supervened. He thought syringing very rarely caused cephalic trouble. The speaker witnessed the post-mortem in another case in which no injections had been used; that patient died, having a temperature of 111.5°, from abscess of the tempero-sphenoidal lobe, and connected with the ear. Almost all these cases of abscesses of the brain, in connection with the ear, he believed, are the result of inflammation extending from the ear.

Dr. Glasgow reported a case very similar to that of Dr. Funkhouser; in which a syringe was not used. The symptoms of the case followed the same course as that which Dr. Lutz had reported. The patient was in a state of coma when visited, and died, in all probability from abscess of the brain.

Dr. Barclay.—If the syringe is used simply to cleanse the external meatus, that is rational. The "deadly" syringe, as the doctor denonimates it, may be "deadly" in the same way that the obstetric forceps, urethrotome or any other instrument may be deadly if used without care or judgment. The speaker said he had reported a case of abscess of the middle ear, which had continued for three months; the patient's ear having been carefully syringed three times a day with warm water, sterilized, and the abscess disappeared, within three days, and the perforation closed, after discontinuance of the syringing, and a slight layer of boracic acid had been thrown over the external wound in the tympanum. However, there is no question but that the syringe is a useful instrument, when properly used, for purposes of cleanliness, and for reaching parts which can not be reached by other means. Aurists are very careful not to inflict damage; but authorities state very positively that the more extended their experience, the less and less frequently they resort to the use of the syringe, as a therapeutic procedure.

Dr. Bremer remarked.—When he stigmatized the syringe as "deadly" he of course meant that the syringe was apt to prove deadly in the hands of inexperienced persons; those who do not know how to handle it, and are not aware of the possible injury, which may be entailed by the forcible injection of fluid, in certain

conditions. The fact, that, among two thousand ear patients, treated by a specialist in ear disease, not one was found, in which aural injections were followed by meningo-encephalitis, proves nothing; because those gentlemen are perfectly familiar with the proper mode of handling the syringe; but he designed simply to inveigh against the use of the syringe by inexperienced persons, whether lay or professional. He remembered distinctly that Bergmann warns against the misuse of the syringe, and condemns in them toto.

SOCIETY NEWS.

MEETINGS OF MEDICAL ASSOCIATIONS.

Name.	Time and Place.	Secretary.
Am. Med. Ass'n..	Washington, May 5.....	W. B. Atkinson, Phila.
Alabama.....	Huntsville, April 4.....	T. A Means, Huntsville.
Arkansas.....	Hot Springs, April 20....	L. P. Gibson, Little Rock.
California.....	Sacramento, April 21.....	.....
Colorado.....	Denver, June 16	C. Parkhill, Denver.
Connecticut	Hartford, May 27.....	M. E. Worden, Bridgeport
Dakota, N.....	Fargo, May 26.....	Dr. Rounsevil'e, Larimore
Dakota, S.....	Chamberlain, June 10....	A. C. Warne, Mitchell.
Delaware.....	Rehoboth, June 9.....	W. C. Pierce, Washington
Florida.....	Pensacolo, April 14.....	.....
Georgia.....	Augusta, April 15.....	.....
Illinois	Springfield, May 19.....	D. W. Graham, Chicago.
Indiana.....	Indianapolis, May 18.....	E. S. Elder, Indianapolis.
Iowa.....	Waterloo, April 15.....	C. F. Darnell, W. Union.
Kansas	Wichita, May 13.....	Dr. Lindsay, McPherson.
Kentucky.....	Lexington, May.....	J. Steele Bailey, Stanford
Louisiana.....	.....	P. B. McCutcheon, N. O.
Maine.....	Portland June 9.....	C. O. Smith, Portland.
Maryland.....	Baltimore, April 28.....	Lane Taneyhill, Baltimore
Massachusette....	Boston, June 9.....	.....
Michigan.....	Saginaw, June 11.....	C. W. Hitchcock, Detroit.
Minnesota.....	Minneapolis, June 18.....	C. B. Witherle, St. Paul.
Mississippi.....	Meridian April 15.....	D. S Rhodes, Madison St.
Missouri	Excelsior Springs, May 12	J. C. Mulhall, St. Louis.
Montana.....	Helena, April 24....	J. H Owing, Deer Lodge.
Nebraska.....	Lincoln , ...	W. L. Hildreth, Lyons.
New Hampshire..	Concord, June 15.....	G. P. Conn, Concord.
New Jersey.	Long Branch, June 23...	W. Pierson, Orange.
New York Ass'n.	New York, Oct. 28.....	E. D. Ferguson, Troy.
New York Society	February, 1892.....	F. C. Curtis, Albany.
North Carolina...	Asheville, May 26.....	S. M. Hays, Oxford.
Ohio.....	Putinbay, June 17.....	G. H. Collamore, Toledo.
Pennsylvania.....	Reading, June 2.....	W. B. Atdinson, Phila.
Rhode Island.....	Providence, June 11.....	W. R. White, Providence.
South Carolina....	Not settled.....	.....
Tennesee	Nashville, April 14.....	.....
Texas	Waco, April 28.....	F. E. Daniels, Austin.
Vermont.....	Burlington, Oct. 15.... .	D. C. Hawley, Burlington
Virginia.....	Lynchburg	L. B. Edwards, Richmond
Washington	Seattle, May 6.....	C. L. Flannigan, Olympia
W. Virginia.....	Fairmont, May 20.....	J. L. Fullerton, Wheeling
Wisconsin.	Madison, June 3...	J. R. McDill, Milwaukee.

NOTICE TO THE MILITARY SURGEONS OF THE NATIONAL GUARD.

The following has just been received, and we with pleasure give it publication:

State of Wisconsin,
Office of Surgeon General.
Milwaukee, Wis., March 6, 1891.

Dr. N. Senn, of Milwaukee, Surgeon General of Wisconsin, is desirous of obtaining the name and address of every surgeon of the National Guard in the United States for the purpose of taking necessary preliminary steps towards the formation of a permanent National Association.

AMERICAN MEDICAL ASSOCIATION.

The forty-second annual session will be held in Washington, D. C., on Tuesday, Wednesday, Thursday and Friday, May 5, 6, 7 and 8, commencing on Tuesday at 11 A.M.

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by representation in their respective State Societies, and from the Medical Department of the Army and Navy, and the Marine-Hospital Service of the United States.

"Each State, County and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, Territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association.

Members by Application.—Members by Application shall consist of such Members of the State, County, and District Medical Societies entitled to representation in this Association as shall make application in writing to the Treasurer, and accompany said application with a certificate of good standing, signed by the President and Secretary of the Society of which they are members, and the amount of the annual membership fee, five dollars. They shall have their names upon the roll, and have all the rights and privileges accorded to permanent members, and shall retain their membership upon the same terms.

The following resolution was adopted at the session of 1888:

That in future each delegate or permanent member shall, when he registers, also record the name of the Section, if any, that he will attend, and in which he will cast his vote for Section officers.

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, at once, lists of their delegates.

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries are, by special resolution, requested to send him, annually, a corrected list of the membership of their respective societies.

Addresses.

On General Medicine, by Dr. E. L. Shurly, Detroit.

On General Surgery, by Dr. Jos. M. Mathews, Louisville, Ky.

On State Medicine, by Dr. W. L. Schenck, Topeka, Kan.

Committee on Arrangements: Dr. D. C. Patterson, Chairman, 919 I Street, N. W., Washington, D. C.

William B. Atkinson, M.D.,
Permanent Secretary.

SELECTIONS.

EARLY DIAGNOSIS OF SOME SERIOUS DISEASES OF THE NERVOUS SYSTEM.

Abstract of an Address By E. C. SEGUIN, Providence, R. I.

It is perhaps more important to make an early diagnosis of this protean affection than of any of those previously studied, because there is no doubt but that by early, careful, and long-continued treatment it can be, in a small minority of cases, cured. What this proportion is no one can tell. In my own experience I have records of several cases which have been perfectly free from attacks (from any manifestation of epilepsy), for upward of four years; yet I am hardly prepared to report them as cures. Recently one of my cases relapsed after an interval of over ten years, but as I have only the patient's bare statement, and she lives far away; there is just a possibility that the attack was hysterical. Still, I do believe that some cases are cured.

Epilepsy is a chronic disease characterized by the recurrence, at irregular intervals, of attacks, (seizures or popularly speaking "spells" or "fits"). These attacks vary extremely in form; some are terrific in their violence, others so slight and transient as to escape the observation of even experienced physicians. The various forms may, however, be classified with sufficient accuracy under the five following types or varieties.

1. Simple motor epilepsy (epileptiform spasms without loss of consciousness): Jacksonian epilepsy. These spasms are localized in various parts of the body. Sooner or later loss of consciousness follows the spasms, thus demonstrating its relationship with:

2. Common spasmodic epilepsy (*grand mal*).

3. Attacks, with slight momentary tonic spasm, or consisting only(?)of a peculiar momentary sensation in the head. In both these is a short loss of consciousness, though the patient frequently denies it. This is sometimes called epileptic vertigo (a misuse of the word vertigo) or *petit mal.*

4. Psychical epilepsy; in which a seemingly volitional co-ordinated action (often complex) constitutes the seizure; or it may appear as a temporary insane condition or psychosis.

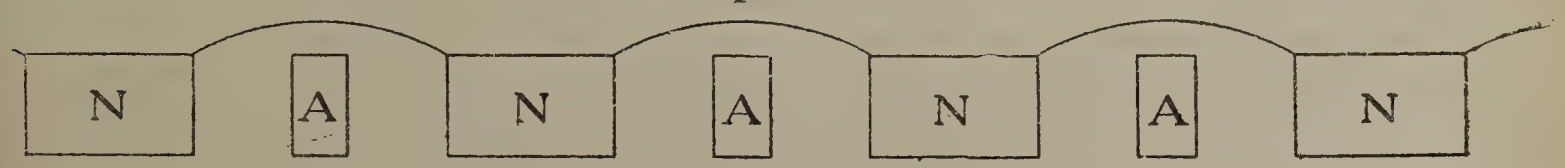
5. Hystero-epilepsy; a hybrid form in which symptoms of epilepsy and of motor hysteria are variously combined.

These types may co-exist in one individual, any two or all of them. Careful inquiry reveals the occurrence of *petit mal* in many cases of *grand-mal.*

However varied may be the combinations of types of attack, the successive seizures of each type almost exactly resemble each other in a given patient. We say that epileptic attacks are, as it were, stereotyped. Careful attention to this point will help in its diagnosis from hysteria and malingering. For example, if a patient have at different times attacks of *grand-mal* or *petit mal,* and of psychic epilepsy, the succeeding seizures of each type will be almost absolute copies of the preceding ones of that type. As we sometimes say of the heart's action, there is a regular irregularity in the symptoms.

Some authorities reject simple motor spasm from the class of epileptic manifestations, but any one who has watched the evolution of a case of symptomatic epilepsy (from a cerebral tumor for example), will be convinced that the loss of consciousness, clonic movements and asphyxial stage, are but the crowning feature of an extension, topographically and in severity, of the spasm which at first was very local, for example, in one hand and forearm; or, in other cases, simple motor seizures alternate with typical attacks of *grand-mal.* The proof of the epileptic nature of psychic seizures is also obtained by our knowledge of their co-occurrence, alternations with, and substitution for common attacks, as well as by the therapeutic fact to be referred to further on.

We must bear in mind that no one symptom of epilepsy is pathognomonic or even has as much value as fulgurating pains have in tabes, or dysarthria in dementia paralytica. It is the co-occurrence and group-



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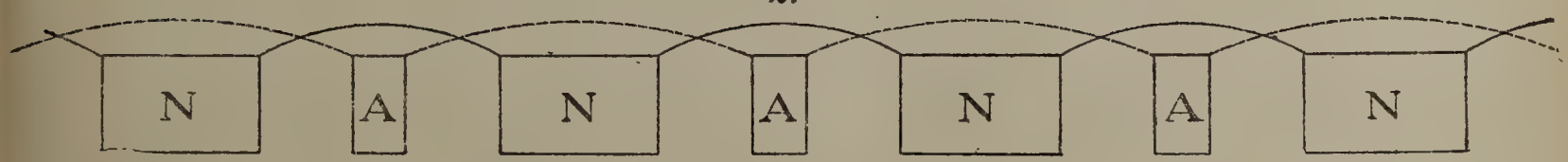

FIG. 1. State of Consciousness in Epilepsy, Coma and Syncope. Absolute intervals in psychic life.

FIG. 2. State of Consciousness in Somnambulism, Hypnotism (of a certain degree), some cases of Psychic Epilepsy and of Insanity; Double Consciousness. The states of abnormal psychic activity are united to one another but separated from normal consciousness by as complete a break as in condition one.

N, Normal consciousness. A, Attack (blank, or abnormally conscious).

ing, or the sequence of the symptoms which go to make up an inductive diagnosis, even in what at first sight seem very different conditions. What could be more different, on the surface, than an attack of *grand mal*, an epileptic vertigo, or a maniacal manifestation of epilepsy?

Next, allow me to speak in detail of the diagnostic value of the individual symptoms of an attack.

1. Loss of consciousness is by some held to be a never-failing symptom, but if we admit Jacksonian spasms into the epileptic group, it will be found wanting in all cases of purely motor epilepsy. In some cases of *petit mal*, those in which a momentary sense of stoppage of cerebral action, or a peculiar sensation, constitutes the attack we cannot feel sure that consciousness is lost; we infer its momentary suspension in contradiction to the patient's positive assertion. In some cases intermediate between *grand* and *petit-mal*, patients sometimes prove by repeating after an attack what was said or done before them, that the unconscious period was much shorter than we supposed. In psychic epilepsy it is not a simple loss of consciousness which obtains, but a peculiar different consciousness which cannot be recalled or reproduced after the attack; in other words, there is amnesia of all that took place in the seizure even if it lasted days, weeks or months. During the attack the patient has a consciousness belonging to the morbid condition of the brain underlying the attack; he seems conscious, answers correctly, does what he is bid, performs the ordinary acts of daily life, even executing business matters and traveling. It is a state of consciousness not unlike that observed in trance, somnambulism and deep hypnotism. It is an unsolved problem whether the abnormal conscious state is recalled by the patient in subsequent paroxysms; in other words, whether we have here "double consciousness," in which the pathological state of the ego is continuous in succeeding attacks, just as the normal consciousness is continuous in the periods between attack. An absolute barrier, as impassable, as that between life and death, which we term amnesia, separates the two states. What a startling problem this double life presents to the student of the human "soul."

I am disposed to classify procursive epilepsy, as newly described by Bourneville, with psychical epilepsy. The running is probably done in obedience to voices heard or visions seen (hallucinations).

After a paroxysm of psychic epilepsy some patients apparently recall a few features of the attack, but I am inclined to think that this is really a process of inferential reasoning rather than a true, direct recollection. In the same way some patients know that they have had an attack of *grand-mal* or of *petit-mal*.

The extreme suddenness with which consciousness is lost in the ordinary epilepsy is of considerable value for its differential diagnosis from syncope and hysteria.

2. Dilatation and immobility of the pupil. This invariably occurs only in *grand-mal*, and forms an intermediate between this and *petit-mal*. It is often present in the *petit mal*, and is not observed in most cases of psychic epilepsy. It is a symptom generally overlooked by the laity; and occasionally (as we seldom are able to witness attacks), it is desirable to instruct relatives how to detect the symptom to help us in diagnosis. In cases where there is doubt, for instance, as to whether a convulsive attack is epileptic or hysteric, the determination of this sign is vital. It should be looked for at the onset of the seizure.

3. Co-existent with dilatation of the pupil is pallor or an ashen-gray (livid) hue of the skin of the face. Why it occurs in the same cases that show pupillary dilatation is explained by the generally accepted theory that both symptoms are due to the same cause, that is, vaso-motor spasm occurring as a part of the general motor discharge (from the epileptic center?) goes out by two channels: (*a*) through the common motor nerves supplying the striped muscular system generally (except the heart), and (*b*) through the vaso-motor nerves supplying the unstriped muscular fibres of the vascular system. In the iris it is a question whether the spasm is vascular (my own view, following Rouget) or simply muscular (dilating fibres contracted). Here again we have a symptom which, practically, is not of very great utility because it is often overlooked by witnesses; they often persist in saying that the patient's face was red or flushed or normal during the attack. This faulty observation is due to the fact that the observation is not made at the really initial stage of the seizure. It is a fleeting symptom, quickly succeeded in most cases by ordinary color, flushing, or intense turgescence.

4. The spasm itself. It is most important to obtain as minute a description as possible of the first spasmodic movement of an attack supposed to be epileptic. The questions should tend to elucidate (*a*) the exact point of departure of the spasm (first movements or "signal-symptom" in organic epilepsy); and (*b*) the form or nature of the spasm. If you learn, for example, that the spasm always begins in the right fingers, you have a precious guide for your later pathological diagnosis. In the majority of cases the first movement is bilateral and general, often first noticeable in the eyes, neck and throat. It may be momentary, a simple stiffening of the body, as it were, congealing the patient in the attitude he happens to be in ("statue-like state.")

As regards the form of spasm, in typical *grand mal*, careful observation always reveals two modes of muscular movement. One is a sudden rigid contraction (tonic spasm) of the entire muscular system, including the laryngeal and thoracic muscles. This constitutes the whole spasm in many cases of *petit-mal* ("staring-spells," "statue like state"). It is momentary in duration, seldom lasting half a minute, contrary to the assertions of lay witnesses. In *grand mal* there next occurs jerking or intermittent spasms of nearly all parts (clonic spasm), which may last a minute or more in rare cases. Coexistent with this we have congestion or purplish hue of the face, frothing, biting of tongue, emission of contents of viscera; continued unconsciousness. These

symptoms of the second stage of a true epileptic attack are due to the asphyxial state produced by the first or tonic spasm. In *petit-mal* we have only the first or tonic spasm. In psychic epilepsy, though there may be complicated muscular movements, we never have spasm: the movements are co-ordinated and apparently voluntary.

It is of much importance to obtain a clear description (assisted by well-directed questions) of the form of spasm observed. In hysteria, for example, the tonic period is absent, and the jerking convulsions are usually more or less co-ordinated, dramatic and quasi-voluntary. The asphyxial condition is not present, nor of course do we have the vaso-motor spasm (pallor of face or dilatation of the pupils). Malingerers seldom know enough to produce the proper succession of tonic and clonic spasm, though they may produce a terrific convulsion and froth pretty well. In both hysteria and malingering the spasm in much prolonged—far beyond the limit of from one and a half to two minutes usually observed in epilepsy. Often, also, the spasms are much more violent in the non-epileptic states. As a part of the spasm, the condition of the eyelids is of paramount importance for diagnosis between hysteria and epilepsy. In the latter they are always(?) open, usually staring and fixed by tonic spasm, while the closed, quivering lids of the former condition are significant to the skilled observer as soon as he glances at the convulsed patient. I have been led by experience to attach very great value to these points.

5. The sensory aura. I have spoken of the value of the "signal-symptom" or initial local spasm, as a help to the diagnosis of organic epilepsy and of the location of the lesion. The aura, so-called, is of some importance also, by enabling us to locate quite accurately the seat of primary irritations in the sensory portion of the central nervous system. Just as a tingling sensation in the little finger is characteristic of a blow upon or an irritation of the trunk of the ulnar nerve, so do the sensory auræ of epilepsy point to irritation of some sensory nucleus or path. The sensory aura often coincides in location with the first spasm or "signal-symptom" (for example, in one hand). In most cases, however, the sensation just preceding the loss of consciousness is quasi-visceral, apparently starting from the stomach, the abdomen, or one iliac region. When the aura is persistently placed deep in the so-called ovarian region (which is not at all the region of the ovary) it gives rise to the idea that the epilepsy is caused by ovarian disease. On such a flimsy basis, re-enforced by the fact that attacks are more frequently, or wholly, confined to the menstrual period, a whole theory of ovarian epilepsy was erected a few years ago, and many women needlessly multilated by surgical treatment. I have seen several cases in which ovariotomy, single or double, had been proformed without the slightest effect on the disease. To be logical, the stomach, small intestines, sub-sternal parts, limbs, etc., should be excised to cure epilepsy.

The true interpretation is, that a centrally placed irritation produces a referred sensation in the distribution of sensory nerves arising in or passing through the seat of the lesion. Thus the very common sub-sternal and gastric aura represents, to my mind, a lesion of the floor of the fourth ventricle, and autopsies go to support this view. I have a case of *petit mal* under treatment in which for several years the aura was hypogastric (or apparently uterine). It gradually ascended to the middle of the abdomen, and is now nearly a gastric aura. This cannot be explained by any theory of extension of the lesion from the uterus to the intestines, and thence to the stomach; but it is very significant of a transfer of the lesion causing attacks, to a different level of the medulla oblongata.

If you will allow me here a therapeutical digression, I will say that the determination of the signal symptoms and of the sensory auræ is of value as a guide to the abortive treatment of attacks on the principle advanced by Brown-Séquard, namely, that an artificial irritation applied to the seat of aura (or signal symptom) often arrests the attack. For example, in cases where the signal symptom, or aura, is in the hand or in the foot, the sudden application of a ligature on the wrist or ankle often prevents or aborts the attack. The fact is ancient, but the true theory of its application was first given by Brown-Sèquard; a centrifugal irritation inhibits the central discharge. I have been very successful in such cases by having the patient wear a bracelet or anklet of metal or cord, to be suddenly and severely tightened as soon as the patient has the first sign of the attack. Gastric and sub sternal aura are best met by an irritation to the fauces, a swallow of table-salt, or an inhalation of spray of carbonic acid. The application of these mechanical means, as well as the inhalation of nitrite of amyl (irrespective of the location of the aura), is limited to the few cases in which some little time intervenes between the occurrence of the premonition and loss of consciousness, and the patient has time to call for help, or to open a bottle and smell it.—*Boston Med. and Surg. Journ.*

[TO BE CONTINUED.]

LISTER'S METHOD DISCARDED BY LISTER.

"Who could have foreseen the short existence of the world-renowned system of Lister, which has been for years the ideal of modern surgeons? Who could have dreamed that the idol would be one day broken by him who had placed it on a pedestal of bronze and polished brass?" Such are the questions with which the *Journal d'Hygiene* begins the announcement of the present status of Listerism, and goes on to remark: "It is, however, a historical fact. The dictum of Lister and his antiseptic doctrine have ceased to exist. In his remarkable communication to the Congress at Berlin, on the actual condition of the antiseptic treatment of wounds, the eminent English surgeon has given the following judgment:

"As regards the spray, I feel ashamed that I should have ever recommended it for the purpose of destroying the microbes of the air. If we watch the formation of the spray, and observe how its narrow initial cone expands as it advances, with fresh portions of air continually drawn into its vortex, we see that many of the microbes in it, having only just come under its influence, cannot possibly have been deprived of their vitality. Yet there was a time when I assumed that such was the case, and trusting the spray implicitly, as an atmosphere free from living organisms, omitted various precautions which I had before supposed to be essential.

Lawson Tait, of Birmingham, Bantock, of London, and Bergmann, of Berlin, in reviewing their vast experience, are not afraid to affirm that antiseptic treatment must not yield the place to the aseptic method!

Water boiled or sterilized, a brush and soap are the simple means which have enabled these eminent surgeons to perform a series of one hundred ovariotomies without a single death.—*Cin. Med. News.*

Trendelenberg's Flexible Dressing.—Prof. Trendelenberg has been using at his clinic a gelatin paste, recommended by Unna, that is designed to be substituted in those cases where flexible collodion or india rubber solution have formerly been employed. It will hold dressings in place while permitting free motion of the parts. It is not friable nor very stiff, and is not so adherent to the cuticle as to interfere with the excretory functions of the skin. It therefore does not cause the peeling off of the upper layers of the epidermis, upon being removed, and the tendency to eczema in consequence. It is prepared in two degrees of consistence. The thick paste contains gelatin, glycerine and water, each thirty parts, with oxide of zinc ten parts. The thin paste has gelatin twenty parts, glycerine thirty, water forty, with oxide of zinc ten parts. Heat is necesary when the pastes are compounded; it is also needed to liquefy them when they are used. The pastes are readily removed with warm water.—*Jour. A. M. A.*

Quick Action of Drugs.—The *Medical World* says if you want a sure, speedy action from your drugs as if you gave them hypodermically, administer them in hot water; one-half the dose will have the effect. The reason is obvious. If the dose be given in hot water it is quickly absorbed, and the force of the drug thrown upon the system at once. Few people realize how long the dose will remain in the stomach if that viscus be chilled. Beaumont found that a glass of ice water stopped digestion for one hour. This method of administration is particularly suitable for the vegetable preparations, opiates, etc.

USEFUL FORMULÆ.

The following are taken frow the *Boston Med. and Surg. Jour.*:

Infantile Constipation.—Bouchat gives the following syrup in the constipation of infants:

℞ Podophyllini, - - - - gr. j.
Alcohol, - - - - ʒjss.
Syr. althæ, - - - - ℥iv.
M. A dessertspoonful is given daily.

For Vomiting, Lahnstein recommends:

℞ Menthol, - - - - - grs. l.
Alcohol, - - - - - ℥ij.
Syrupi, - - - - ʒiij.
M. Sig.: A teaspoonful may be given every hour.

Powder for Migraine.—The following powder is recommended in *La Medicine Moderne:*

℞ Citrate of caffeine, - - - grs. jss.
Phenacetin, - - - - grs. ij.
Sugar of milk, - - - - grs. iv.
M. Sig.: For one powder. This may be repeated, if necessary, in two hours.

Scabies.—M. V. de Lollis presents the following as very efficacious:

℞ Creolini, - - - - grs. vijss.
Vaselini, - - - - ℥jss.
M. Sig.: Anoint the affected parts thoroughly once daily.

The whole body could be rubbed with the ointment without causing any unpleasant effects.

Whooping-Cough.—Baumel uses a mixture which also acts favorably upon the catarrhal condition:

℞ Ext. belladonnæ, - - - gr. j.
Symp. tolutan., - - - f℥iv.
M. Sig.: Three to four coffeespoonfuls for a child one year old.

Talaman prescribes:

℞ Terpine, - - - - - gr. xv.
Antipyrin, - - - - gr. xv.
Syrup, - - - - - f℥j-ʒvj.
Mucilaginis, - - - - f℥j.
M. Sig.: One or two teaspoonfuls several times a day for a child under four years.

For use at the time of the paroxysm, Wilde recommends the following mixture, a teaspoonful of which is to be poured upon a compress and held close to the child's mouth.

℞ Chloroformi, - - - - f℥j.
Æther. sulphuric. aurif., - f℥ij.
Ess. terebinthenæ rect., - - fʒijss.—M.
—*Annals of Gyn. and Pæd.*

ORIGINAL COMMUNICATIONS.

SURGERY.

INTRA-PERITONEAL MYO-FIBROMA OF THE RECTUM WEIGHING TWELVE POUNDS SUCCESSFULLY REMOVED BY LAPAROTOMY.

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The most experienced surgeon is most conservative in his diagnosis of abdominal tumors, as he has only too often had an opportunity to change his diagnosis after he has opened the abdomen. It cannot be said that the additions to our diagnostic resources in the recognition and classification of tumors in the peritoneal cavity have kept pace with the perfection of the technique of abdominal operations during the last twenty years. Certainly a correct diagnosis in obscure cases of abdominal tumors is greatly to be desired, but is often not attainable with our present means of diagnosis.

In view of the difficulties which so frequently surround a positive diagnosis, it has been advised not to rely too much upon ordinary methods of examination, but to subject doubtful cases at once to an exploratory laparotomy, and, if required, follow it with the necessary medical treatment. Although the opening of the abdomen, under strict antiseptic precautions for diagnostic purposes, is not attended by much risk to life, no conscientious surgeon will make light of this procedure, and will not resort to it until he has satisfied himself after a most painstaking and thorough examination, that a diagnosis cannot be made without it, and that the conditions within the abdomen in all probability will require surgical treatment. The following case is reported, for the purpose of showing how difficult it is in some cases to determine, beforehand, the primary location and starting point of solid intra-pelvic tumors, and at the same time to point out the impossibility, by our present means of diagnosis, to differentiate between intra-peritoneal myo-fibroma of the rectum projecting into the peritoneal cavity, and solid tumors of the ovary, broad ligament, and pedunculated myo-fibromata of the uterus. I have been unable to find a similar case in the literature, although a careful search has been made dating back for at least twenty years.

The patient was a married lady, æt. 45, the mother of seven children. A pelvic tumor the size of a walnut, was accidentally discovered by Dr. Philler, of Waukesha, her family physician, while attending her for miscarriage, about three years ago. The tumor at that time was felt between the uterus and rectum and appeared to be firmly attached. For two years the tumor caused no inconvenience, and the patient remained in her usual health, when the abdomen gradually commenced to enlarge, and the patient to complain of some pelvic distress. Six months later her general health began to decline, want of appetite and considerable loss of flesh. The patient never suffered from constipation or any other symptom pointing to the rectum as the primary seat of the tumor. Menstruation normal, both as to time and quantity. The patient was admitted into the Milwaukee Hospital, April 20, 1890. At this time she was anæmic, considerably emaciated and the abdomen greatly distended by fluid, and both lower extremities and the hips œdematous. A careful examination of the heart and liver revealed nothing that would account for the ascites, and with the exception of being scanty, the urine was found normal. The supposition was that the ascites was caused either by malignant disease of one of the abdominal organs or by tubercular peritonitis. A pailfull of a clear serous fluid was removed by tapping. As the abdomen was being emptied a large solid tumor became apparent, occupying the left and lower portion of the abdomen. Bi-manual examination of the uterus revealed this organ of normal size, but displaced to the right and pushed or drawn upward by the solid tumor. It could be clearly established that no direct connection or adhesion existed between the uterus and the tumor. The right ovary could be detected in its proper location and of normal size. The left ovary could not be discovered. It was now evident that the tumor was the same that had been discovered two years before, and that in all probability the ascites was caused by it. The tumor was quite movable and could be pushed from the vagina in an upward direction for several inches, and could also be rotated around its axis, but when released would always return into the same position. The attached portion appeared to be low down in the pelvis. A probable diagnosis of a solid tumor of the ovary or broad ligament on the left side was now made and a radical operation advised. Some sixteen years ago I removed a solid tumor of the left ovary, almost under similar circumstances, and the patient remains in perfect health to-day.

Laparotomy was performed April 24, 1890. Although only four days had intervened between the time of the tapping and the operation, the abdomen had again become distended by a large quantity of the same kind of fluid. The operation was performed under strict antiseptic precautions. An incision was made half way between the umbilicus and pubes large enough to introduce the hand. After all of the serum had escaped, the relation of the tumor to the uterus and its adnexa was carefully examined. The uterus was found normal in size, but displaced upward and to the right by the tumor. The right ovary, tube, and broad ligament could be readily identified, were normal in size and structure, and had no connection whatever with the tumor. The tumor was hard to the touch, and evidently covered with peritoneum. No adhesions. In searching for its attachment, I found that its pelvic portions became more and more contracted, until at the deepest

portions of the pelvis near the middle line, the attached part was somewhat flattened in a vertical direction, and about three times the diameter of the first joint of the thumb. On account of the inaccessibility of the attached portion, should hæmorrhage be encountered, I did not make an attempt to remove the tumor by enucleation. As it was impossible to ligate the base of the tumor without lifting it partly out of the pelvis, this was done by an assistant. It was intended to tie the contracted, attached part in three sections; the upper and lower part by transfixion; the central portion by throwing the ligature around it after cutting the tied sections. As soon as the transfixed portions had been cut and the last ligature was to be applied, the tumor was torn out of its bed by the traction made by the assistant. Immediately upon the removal of the tumor, a small quantity of fluid fæces escaped into the pelvis, which was at once carefully removed with a sponge, and the surface compressed to prevent the extravasation, until I could determine what had happened.

Upon examination of the torn surface of the tumor, I found attached to it a strip of mucous membrane, some what oblong in shape, about half an inch in length and one-third of an inch in width. The escape of fæces left no doubt that some part of the large intestine had been injured, but some doubt existed as to the exact location of the wound. Rectal insufflation of air demonstrated, that the opening existed at the floor of the pelvis, at a point over the middle of the rectum, where the peritoneum is reflected forward over the bladder. A large soft rubber tube was now inserted into the rec tum as far as the sigmoid flexure of the colon, and over this, after careful disinfection of the parts, which had been contaminated with fæces, the opening in the rectum was closed with a number of Lembert sutures. This part of the operation was exceedingly difficult and somewhat unsatisfactory, on account of the deep location of the visceral wound. After another careful toilette of the pelvic cavity, a large Keith's glass drain, surrounded by several layers of iodoform gauze, was inserted in such a manner that its distal end corresponded exactly with the sutured rectal wound. The abdominal incision, which extended from the pubes to the umbilicus, was closed in the usual manner, except at the lower angle, where enough space was left open for the capillary and glass drains. The operation was necessarily a protracted one, lasting nearly two hours, and towards the latter part of it the pulse became very feeble and rapid, the patient at the same time manifesting other symptoms of shock; whisky had to be administered subcutaneously.

The patient rallied well from the immediate effects of the operation. The bladder was emptied by the use of the catheter, and small doses of opium were given to procure rest for the rectal wound. During the first forty-eight hours nothing was given by the stomach but brandy in water and beef-tea. Very little fluid escaped through the drainage tube, but this was allowed to remain for the purpose of guarding against fæcal extravasation, should the rectal wound fail to heal by primary intention. A laxative was administered on the third day, and after the bowels had moved freely, the glass drain was removed and a small quantity of fluid fæces escaped. The tubular wound was gently washed out by irrigation with a solution of boracic acid and the drain re-inserted. The external wound healed without suppuration, and all of the sutures were removed at the end of the first week. Six days after the operation the glass tube was removed, and drainage secured by the insertion down to the rectal wound of strips of iodoform gauze. The fæcal fistula closed completely and permanently two weeks after the operation; after which the drainage opening closed rapidly by granulation and cicatrization. Ascites did not reappear after the operation and the patient is now, nearly a year after the operation, in excellent health.

Description of tumor.—The tumor weighs twelve pounds. It is somewhat irregular in outline but on the whole it is nearly globular. It is covered by peritoneum, except at the base, where it was detached from the rectum. At the margins of the attached surface it is easy to trace the tumor between the mucous membrane and the peritoneal coat of the anterior rectal wall. The tumor is very dense throughout, and the cut surface presents the trabeculated structure with multiple foci of growth, so characteristic of myo-fibroma. Under the microscope it can be seen that the fibrous tissue predominates, the fibres being arranged in concentric layers and wavy bundles traversing the tumor in different directions. The muscular fibers, with their elongated large nuclei are arranged in bundles. The tumor tissue is scantily supplied with blood-vessels. The manner of attachment of the tumor as well as its microscopical structure leave no doubt that it is a myo-fibroma, which started in the anterior rectal wall, probably somewhat nearer the peritoneal than the mucous coat.

Remarks.—That an intra peritoneal myo-fibroma of the rectum must be an exceedingly rare affection is evident from the fact that I have been unable to find a similar case in literature. A friend of mine who related this case to Sanger, of Leipsig, informed me, that the latter had observed a somewhat similar case, but to my knowledge it has never been published; myo-fibroma of the rectum projecting into the lumen of the bowel as a polypoid growth, which if not common, is at least occasionally met with. Quite a number of operations for this affection could be collected. In such cases the primary starting point of the tumor must be near the mucous membrane, which is pushed before it and becomes the covering of the polypus. If the primary matrix of the tumor is located nearer the serous coat, the tumor projects in the direction offering the least resistance, and becomes an intra-peritoneal growth, constriction and pedunculation taking place at the attached portion as the tumor enlarges within the peritoneal cavity. It might be claimed that the tumor was primarily a myo-fibroma of the uterus, becoming later attached to the rectum, and isolated from the uterus by

progressive atrophy of the pedicle. Such an explanation is untenable in this case, because at the margin of the attached portion it is easy to trace the tumor substance between the peritoneal and mucous coat, at the same time the surface of the uterus on the corresponding side was found intact and perfectly smooth. In another case, a woman, æt. 41, I removed a myo-fibroma of the anterior rectal wall, the size of a walnut, through an incision of the posterior vaginal wall. This tumor reached down to the mucous membrane of the rectum, but projected toward the vagina; and if it had been located about two inches higher up, it would have gradually developed into an intra-peritoneal tumor. Even with the light gained from this case, I know of no means to distinguish an intra-peritoneal myo-fibroma of the rectum from a solid tumor of the ovary, tube, broad ligament or a pedunculated tumor of the uterus. Manual exploration of the rectum might impart valuable diagnostic information, but it is doubtful if it would lead to positive conclusions. The ascites must have developed in consequence of the mechanical irritation caused by the presence of the tumor in the peritoneal cavity. If, upon opening the abdominal cavity, manual exploration would decide the true nature of the tumor, it would be better, in a similar case, to remove it by enucleation, than to attempt ligation of its base before its removal by excision.

The course, pursued in the management of the visceral wound has served an excellent purpose in preventing extravasation of fæces into the peritoneal cavity not only in this case, but also in one of my cases of gunshot wounds of the abdomen treated by abdominal section. In that case the lowest (thirteenth) perforation was found in exactly the same location. The same precautions were employed, a temporary fæcal fistula formed, but closed at the end of two weeks and the patient made a satisfactory recovery.

A wound in this part of the rectum cannot be securely closed by suturing, and necessitates ample provision for drainage, to prevent subsequently fæcal extravasation, peritonitis and death should the visceral wound not heal promptly. A combination, of capillary and tubular drainage is best calculated to guard against such disastrous consequences from imperfect suturing of the rectal wound.

SURGERY.

REPORTS OF CLINICAL CASES AT THE ST. LOUIS HOSPITALS.

City, Pius and Protestant Hospitals.

A great variety of interesting surgical cases were exhibited before the medical college classes during the last few days. At the City Hospital, among others, was a case presenting a fistulous opening at the left hip, leading down through the thigh and into the obturator foramen. Pus had escaped through the sinus for some two years. The young man was the son of healthy parents, and the cause of the abscess giving rise to the condition was quite as obscure as the *locus invasionis* itself. The fistulous track had been frequently explored by means of the probe in the hands of his numerous physicians, from time to time, but the efforts were all unavailing.

An incision, five inches long, was made on the anterior aspect of the thigh, and just external to the femoral vessels, and extended down on the inner border of the femur to the obturator foramen, from which point pus continued to well up into the wound. The bleeding vessels were ligated and wound packed from the bottom rather firmly with iodoform gauze. The patient was left in the hands of Dr. Dalton and his competent assistants of the resident staff. At the end of four days when again seen the patient was found to be greatly relieved by the operation. The only explanation I could offer for the abscess within the pelvis was that a portion of the omentum had become strangulated in the foramen, and subsequently sloughed, into which micro-organisms found their way, and thus an abscess was developed.

Another instructive case was a middle aged man, with an extensive urethral fistula. The pyogenic microbes had found their way from the urethra into the right epidydimis and testicle, rendering their enucleation necessary. The fistula in the membranous urethra was closed by a plastic operation, after establishing an opening into the prostatic portion, and uniting the margin of the mucous membrane with the incised skin.

Two accident cases occurring at the same hour were carried into the amphitheater, each having sustained a fracture of both bones of the leg. One of the patients was 40, and the other 50 years of age. The younger and the more interesting of the two cases had received a fracture of the tibia, just above its articulating end, with the astragulus and the lower end of the upper fragment forced through, and at the same time producing a long di-laceration in the skin. The shattered fibula, added to the ghastly rend in the soft parts, looked like amputation would be inevitable, as would have been a year or two ago; but instead the entire surface of the leg was carefully scrubbed with hot water and soap, then cleanly shaven, and the whole drenched with sublimate solution. The bone was now replaced after some considerable effort, and the rent in the soft parts closed by the uninterrupted suture, after which the foot and leg to the knee were encased in plaster-Paris. The patient is making a good recovery, although the temperature rose two degrees the following night, when it was found necessary to cut the suture and irrigate the wound through the fenestrum left in the plaster bandage.

At the Pius Hospital there are, perhaps, a greater number of "abdominal cases" than it is the good fortune for any one surgeon to have on hand at one time. The cases are mostly under the care of Dr. Bernays, and present a variety of exceedingly interesting conditions.

The 13-year old boy, from whose right lobe of the liver a section, embracing fully one-third of that organ, was removed for what was believed to be conglomerate tuberculosis, is doing well. Appetite fairly good, gaining a little in flesh every day. I shall have more to say about this case in some future report. I think it is likely to prove one of the most instructive surgical cases on record. I can not do more at this time than to simply call attention to the interesting series of cases at the Pius Hospital, but next week will report a number of them *in extenso*.

At the Protestant Hospital a number of rare and interesting cases are undergoing treatment. Among those of exceeding rarity may be mentioned the removal of Gartner's duct, by laparotomy, by Dr. Broome. The case was that of a young married woman, whose health had been rapidly failing in consequence of increasing pain attending menstruation. Upon examination a small tumor was discovered in the left broad ligament, and after opening the abdomen in the median line the same was found to constitute the end of Gartner's duct, developed into a cyst the size of a common orange, and contained about three ounces of amber colored fluid.

This sacculated end of the duct, together with its appendage, which measured four inches in length, was detached from the parovarium and removed.

The third day after the operation menstruation commenced and continued for several days, attended with no pain whatever. The ovaries were inspected and found to be perfectly normal, and of course were left undisturbed. Ten days after the operation I saw the patient again, when she appeared to be greatly elated at the prospect of being permanently relieved from the severe pains accompanying former menstruations. But whether or not this rare condition was wholly the cause of her suffering remains to be proven. COM.

SURGERY.

ANTISEPTIC DRESSINGS.

BY F. REDER, M.D., HANNIBAL, MO.

Since we are now living in the age of Anti-a-Septicism, with the eminent Lister as its Creator, let us endeavor to live up to the practice as closely as practicable.

It was but shortly that there appeared in one of the foremost journals of our country a sentence by a surgeon whose name is as familiar to the profession as the name of a bright scholar is to his class. "The antiseptic treatment of wounds, as now almost universally practised, constitutes the greatest triumph of modern surgery." This sentence contains a word that might have been omitted. That word is the adverb "almost," and sorry to say, it is in its place.

A surgeon who has put Anti-a-Septicism down as one of his axioms, and who has the opportunity to meet and come in contact with the surgical cases of colleagues from far and near, can not fail to discover that a great many cases are either partially or totally deprived of any antiseptic treatment. Why should this be? With all the literature, reaching every nook of the country, at our disposal, it certainly cannot be because some of us do not know or have not heard about the antiseptic treatment of wounds! Or can it be possible that some members of the profession have not yet been fully convinced of the virtues of such a treatment? At the present day such an excuse is no excuse.

Anti-a-septicism means nothing more than thorough cleanliness.

It is true that its practice levies upon the surgeon a little more time and a little more expense, but that only in the preparation of the accessories necessary to the practising of the art.

And what is that to a man who is in love with his profession?

Any physician who accepts the responsibility to treat a wound, no matter how trivial the wound may be, should pay the greatest respect to this wound relative to antiseptics, and if he does not, then let the wound be placed in the hands of one that does.

Let us for instance, consider the contents of a surgical bag, as it should be for a general practitioner, either in the city or in the country.

The bag is of leather, preferably so, and of the 15-inch size. Such a size will not be too small or too large. As for the lining, rubber cloth, with as few seams as possible, is desirable. Such a lining will permit of frequent spongings with a corrosive sublimate solution, 1:1000, and thus keep the inside of the bag more or less in an antiseptic condition.

This bag is to contain the dressings and instruments necessary in every day practice, and is to afford all the conveniences necessary to a physician, who takes pride in performing his work with neatness and dispatch.

The material that we will select for wound dressings will be gauze, in the trade called cheese cloth. It is to be the bleached quality on account of appearance.

Gauze is unquestionably the most convenient material for wound dressings. It is cheap, can be bought everywhere, makes a neat dressing, absorbs well, is soft and pliable, and can be easily prepared for use by every practitioner.

Of such gauze let us purchase, for example, 30 yards. The first step to be taken with this cloth is to subject it to a thorough boiling for about two hours. Having been boiled it is placed into a covered jar containing a 5% solution of carbolic acid. In this solution the gauze is allowed to remain for twelve hours, whence it is taken out and hung upon a line that has been treated similarly like the gauze, to dry.

In the country, this can be done out doors on a favorable day when the air is more or less free from particles of dust; but in a city, a room should be selected that can remain closed and undisturbed for the time it takes the gauze to dry.

This process give us a reliable carbolized gauze.

In like manner the sublimate gauze is prepared.

After the cloth has been boiled, it is immersed into a covered jar containing a solution of sufficient quantity with the followig ingredients:

Corrosive sublimate, -	parts,	1.
Sod. chloride, - -	"	50.
Glycerine, - - -	"	200.
Water, - - -	"	1000.

(The above quantity is calculated to impregnate one pound of gauze.)

Twelve hours will suffice to give the gauze a thorough impregnation. It is then removed and hung up to dry.

The iodoform gauze we will also prepare ourselves. It is the most expensive gauze of all, but then the quantity used is but trifling in comparison to either the carbolized or sublimate gauze required.

Of the 30 yards of gauze that have been boiled, let us take 5 yards and place them in a covered jar containing a solution of the following ingredients:

Glycerine, - -	parts,	20.
Iodoform, - -	"	50.
Ether, - - -	"	250.
Alcohol, - -	"	750.

(The above quantity is calculated to impregnate one pound of gauze.)

It is not necessary to allow the gauze to remain in this solution any length of time. A thorough saturation will be sufficient. The gauze is then hung up to dry. When dry it is placed in a wide-mouthed bottle and well corked.

It is quite necessary to subject the bottle and cork to a thorough boiling before the gauze is placed therein, so as to make certain that the bottle and cork are not infected. Right here it would be well to say that the person that prepared the dressings should pay close attention to the fact that his hands should be washed, and then rinsed in a 1:2000 corrosive sublimate solution before touching any of the material.

Another mode of preparing iodoform gauze, which is not so satisfactory as the process just described, but less expensive, is by taking the boiled gauze, wringing it out well, and then with the aid of a pepper box, sprinkle iodoform upon the moist gauze, rubbing it well into the meshes by hand.

These three varieties are the principle ones, and will answer all purposes for the successful treatment of wounds.

The gauze now being dry we will proceed to prepare the dressings. A table having been covered with an oil cloth that has been well scrubbed and thoroughly cleaned with a 1:1000 cor. sublimate solution, the material will be placed thereon. For roller bandages, both carbolized and sublimate, a 6-yards length and a 1 and 2-inches width will be allowed. For compresses, pieces 4 inches square; these can be easily cut up to suit each individual case; and for iodoform compresses, only to be used next to and about the wound, pieces 2 inches by 4 inches; these, too, can be adapted to any case. Having completed the preparation of the gauzes and dressings, we feel that a goodly part of the bag's contents is finished.

Another material very essential to an antiseptic dressing in private practice, is absorbent cotton. Of the many varieties one will answer the purpose very well. Let us select the ½% corrosive sublimate cotton. It answers a safer purpose for general use. Every surgical shop can furnish the necessary quantity desired.

That all such material may be carried conveniently, removed easily and handily from the bag, it would be advisable to have a pouch-like bag made from light rubber cloth, so that it can be sterilized by placing it in boiling water. This pouch is to be divided into four compartments by pieces of rubber cloth properly sewed to the inner surface. These four compartments are to contain, separately, the bandages, carbolized and sublimate gauze, iodoform gauze, and the absorbent cotton.

A string at the top will allow the pouch to be drawn together so that the dressings need not come in contact with any of the other contents of the bag. Then again when the dressings are to be used, the bag can be spread apart, giving convenient access to any of the material desired.

Next let us dwell upon the ligatures and sutures. Of these, catgut and silk are most apt to be called into use in general practice. Of the two, silk should have the preference. However, it is well to have both.

The antisepticizing of catgut is best done by immersing it in the oil obtained from the juniper berry for 24 hours, and then transferring it into absolute alcohol, wherein it is kept till used. Alcohol keeps catgut hard, strong and flexible, stiffening it but very little; whereas a carbolic or sublimate lotion will make it brittle and weak. It is desirable to wind the catgut, a No. 1 size answering for all ordinary purposes, upon a glass bobbin. Such bobbins can be obtained at any instrument shop.

As for silk, this material is to be boiled in a 5% solution of carbolic acid and then preserved in alcohol. Three different sizes of silk, Nos. 8, 9 and 10, will generally meet all requirements. Like catgut, the silk should also be wound upon bobbins. This material is to be kept in separate bottles. Having placed the ligatures and sutures in an aseptic state, let us proceed to give some attention to the sponges. The practice to use sponges in connection with wounds is not to be encouraged, unless the utmost care is taken in their preparation, and that means a consumption of considerable time.

A sponge is in a proper condition when it has been subjected to a rather lengthy process of cleansing. Having been washed thoroughly with soap and water to dislodge calcarous particles and dirt, the sponge is immersed for 15 minutes in dilute hydrochloric acid to dissolve any of the lime salts that may be lodged about its folds. After that it is placed in a potash soap water bath for 14 hours. Taken from that it is rinsed and then submerged in a 5% solution of carbolic acid, in which it remains until required for use.

Some 6 small sponges in a 5% solution of carbolic acid are conveniently carried in a small wide mouthed bottle, and should constitute a part of the outfit. When to be used, sponges are placed in a 3% solution of carbolic acid.

From the sponges our attention will be called to the drainage-tubes. As drainage-tubes command an important position in the treatment of some wounds, it is quite necessary that they should be treated accordingly. Having purchased one yard of black rubber tubing, the size of about a medium large goose quill, we will proceed to perforate the tube, rotating it so that the holes will be upon a spiral line. After the tube has been properly perforated, it is cut into pieces, four inches in length. The pieces are then boiled for about two hours and then placed in a 5% carbolic acid solution, where they are kept till used.

Such a drainage-tube may also answer the purpose of an elastic liagature. A wide-mouthed bottle, long enough to allow the tubes to occupy an upright position, filled with a 5% solution of carbolic acid, and holding from six to eight tubes, will be carried in the bag.

In conclusion, to the material for dressings we will also add to our bag some splint material, and will favor the medium stiff brown pasteboard. Of this pasteboard, one-half dozen pieces, six inches by twelve inches, will answer all wants. These paste-boards are antisepticized by immersing them in a 1:1000 corrosive sublimate solution till they soften, and are then allowed to dry.

The preference for paste-board is expressed because it is the simplest way of making a suitable spint, of course for an adapted case. Such a splint should always be torn into shape, not cut, because the edges, when torn, are soft and thin, while when cut, they are abrupt and hard and may cause pain.

We will now consider the instruments, including the needles, that are requisite for the bag.

The instruments necessary for the general practitioner, both in the city and country, do not embrace a great variety. With a dozen instruments at his dis posal, he can generally get along very well, and meet nearly, if not all, the requirements. To be sure, it is very well to have a fully equipped amputating case stored away in your office, but I return to say that al most every time you are called upon to use this case, it will be necessary to dust the lid.

The following instruments—one scalpel, bellied, one scalpel, sharp-pointed; one Volkman spoon, small size; one pair scissors, flat; one pair scissors, curved; one director; one hæmostatic forceps; one artery and needle forceps improved; one probe, silver; one thumb forceps; two retractors, small size (knives, spoons and retractors to be provided with metal handles)—having been sterilized by being placed in boiling water, can be con veniently placed and kept in a wide-mouthed bottle, about seven inches high, and about two and a half inches in width, filled with glycerine. The points and edges of the knives are to be protected by small piecess of cork. The instrument being constantly submerged will prevent rusting.

When called into use they are placed in a 3% solution of carbolic acid during the operation. When no longer needed, they are cleaned and replaced in the glycerine. The surgical needles are treated precisely like the instruments, and an assortment of strong and medium curved and straight needles are kept in a wide-mouthed bottle, filled with glycerine.

It would be wise to add three silver tracheotomy canulas of different sizes to the instruments. Also a stout pair of scissors for cutting dressings.

Other necessaries that should be included are:

A two-ounce bottle, provided with a glass stopper, of an alcoholic solution of corrosive sublimate, 1:10.

Sixty drops of this solution added to one quart of hot water will make about a 1:1500 solution.

A three ounce bottle, provided with a glass stopper, of carbolic acid.

One half ounce of carbolic acid added to a quart of hot water will make a solution of the strength of about 3%.

A bottle, containing about two drachms of iodoform.

To dust iodoform upon a wound surface can be admirably done with a medium-sized camel's hair brush. The brush is dipped into the powder, then placed near the wound, and by gently tapping upon the quill with the index finger, the iodoform will be dusted over a large area.

Two basins, granite ware, about the size of four inches by eight inches, are required for the necessary antiseptic lotions.

One dozen safety pins, treated and preserved like the surgical needles, should also be added,

A piece of rubber sheeting, two feet square, antiseptized by immersing it in a 5% solution of carbolic acid, is desirable for the protection of the field of operation.

A small-sized fountain syringe is very frequently called into requisition; it is to be included. And now, to complete the list, I will mention the nail-brush, a very useful article and valuable acquisition.

In carefully observing and obeying these modes of preparing and preserving antiseptic dressings mentioned in this article, a surgeon, when called upon to treat a wound need not entertain any fears that the wound, should he fail to bring about its restoration without suppuration, was unfavorably influenced by the dressing.

Surgical Instruments.—The members of the profession generally may not be aware of the fact that the Mellier Drug Co. keep a full line of all the best and latest make of surgical instruments, at their retail house, 518 Olive Street. The Review takes pleasure in imparting the information, and to which it may add that a most accommodating gentleman—Mr. Olberis—presides over that department.

TRANSLATION.

SURGERY.

CAVERNS OF THE LUNGS—OPERATIVE TREATMENT.

TRANSLATED FOR THE REVIEW BY WM. DICKINSON, M.D.

M. Sonnenburg, from whom a former communication on the operative treatment of caverns we have already published, has given recent information of the results of that operation. Of five cases operated on, he announces one case of cure nearly complete, and three others very probable. But, at the time of correcting the proofs, one of the three patients died. Both lungs contained caverns. The right lung, the one operated on, showed very extensive infiltration of gray tubercles, but this condition had not become general in other organs. The author being able to appreciate the changes that had taken place in the lungs under the influence of "the lymph," was satisfied that the caverns had become increased in size, in some instances two or three times as large. This he attributed to the removal of the walls of the adjacent caverns and to the confluence of many caverns by the destruction of the partitions by which they were separated and which were infiltrated with tubercles. As proof of this destruction, there were found in the secretion of the caverns elastic fibers and recognizable fragments of tissue. Some bacilli were also found, generally incorporated in pus cells, and a certain number of microbes of different kinds.

On the other hand.the walls of the caverns were clean and covered with granulation tissue of good appearance. This action is quite surely due to the lymph. Indeed, in a patient who had had an attack of hemoptysis immediately after the operation, he did not dare to repeat the injection for fourteen days. During this period the cavern underwent no modification. Whenever the cavern becomes contracted, the secretion becomes less and less purulent, by becoming mucous, and does not then contain nearly as many bacilli. One of the patients treated became very well, and gained four pounds in weight.

Sonnenburg has never observed that fresh miliary tubercles were produced around the caverns. He desires to know, if the nodules around the ulcerations of the tongue of the larynx, which have been described under that name, are indubitably miliary tubercles. In one case he observed one of the recent nodules, removed it and subjected it to a microscopical examination. Now this was by no means a recent tubercle; it contained no bacilli; it was simply a center of softening. It is quite probable that at this locality there had been a tubercle, which had entirely healed, invisible and void of bacilli. Under the influence reaction had taken place. We can not regard its appearance as evidence of a new infection.

In order that the operation may prove beneficial, the patient should not be affected with extensive lesions. By preference, the patient treated should have only a single cavern, and that of small dimension. The presence of fever is no contra-indication to the operation.—*Le Bulletin Medical.*

THE PRODUCTION OF IMMUNITY FROM DIPHTHERIA.—E. A. von Schweinitz and W. M. Gray have announced in a preliminary note in the *Medical News*, January 3, 1891, their results in the production of immunity against experimental diphtheria in the lower animals.

They give no details as to their method, but state that they have succeeded in obtaining from cultures of Klein's bacillus a chemical substance which renders guinea-pigs treated with it insusceptible to diphtheria upon subsequent introduction of strong virus into the system, while the control animals died in from 24 to 48 hours. They further believe that the experiments being made will demonstrate that they have a substance which will serve to control or prevent diphtheria in man. They think that methods for the treatment of typhoid fever, tetanus and other contagious diseases can be worked out in a similar way. This work has been done in the laboratory of the Bureau of Animal Industry at Washington.—*Brooklyn Med. Jour.*

FATIGUE AND INFECTION.—Immunity from the various infectious maladies has been known for a long time to be influenced by fatigue. Persons debilitated by overwork and worry are more liable to contract certain contagious fevers than those in good general health. Cherrin and Koger, in a recent number of "*Arch. de Physiol.*," have made some experiments upon small animals to determine the influence of fatigue on infection. The animals experimented upon were white rats. Thirty-six of these animals were inoculated, part with a weak culture of anthrax and part with "charbon symptomatique." A part of these animals were then put in a revolving drum and allowed to run from two to eight hours.

The remainder of the rats were kept for control.

The effect was very noticeable that of the control animals a number survived the inoculation, while those put in the drum invariably succumbed. The same results were obtained with cats and dogs. These results accord with clinical observation, and with the the results of Solowieff upon horses.—*Brooklyn Med. Jour.*

CHRONIC GONORRHŒA.—Dr. Roicki recommends injections of ergotine in chronic gonorrhœa. He recommends it as a promptly acting remedy. The injections of the same are borne very comfortably by the patient. He prescribes it in the following formula:

℞ Ergotine, - - - - - grs. vj.
Aq. dest., - - - - - ℥x.

M. Sig.: Three to six injections daily.—*Deut. Med. Woch.*

WEEKLY MEDICAL REVIEW.

TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this REVIEW, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the ST. LOUIS WEEKLY MEDICAL REVIEW, 520 Olive Street.

All letters containing business communications or refering to the publication, subscription, or advertising department of this REVIEW, should be addressed to THE MEDICAL REVIEW ASSOCIATION, 914 Locust Street, St. Louis.

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SATURDAY, MARCH 21, 1891.

TO THE YOUNG MEN OF THE MEDICAL PROFESSION IN ST. LOUIS.

Every zealous physician, mentally or orally, has often asked the question, by what means can the present status of medical science in St. Louis be advanced to that higher level which shall command the award of being first in the van of the great medical centers of the country. The answer is ready: the best way to do it is to *do* it. Nathan said unto David, "Thou art the man." Though I am not a prophet nor the son of a prophet, yet without a prophet's vision, I discern the advent of a medical epoch in this city, such as it has never experienced, if only the profession is true to itself and true to its high destiny. The factors are all here: a little more of individual, combined and persistent effort is necessary. Bent upon the pursuit of some lesser interest we often overlook great opportunities or fail rightly to see the finger that points to them. The eye of genius is ever on the alert to obsevre them. From the crucible of the past are evolved principals to determine the character of the future. To the novice and the unskilled the walls of science seem tortuous and bewildering; but the master mind from apparent chaos educes order, re-arranges accumulated facts, and with these constructs a fabric from whose rising ways a wider range is obtained, and constructive material daily laid from whence to attain greater heights. This plane of elevation the coming generation of workers receives as its lawful inheritance. It is according to the processes of nature that the children should bury their parents; but let not the customary rites be prematurely performed. The elder cordially welcome their juniors to the common field of labor. The aspect of the present and outlook for the future are big with beneficient portents; at this moment the profession in St. Louis teems with young men endowed with vigor, energy, education, competency and ambition, unprecedented in number and degree; private practice and that of the hospitals press upon you facilities for original investigation; the reported achievements in other cities combine with the universal expectation of greater discoveries to stimulate you to noble endeavor. In you abide all hopes for the future. Advance then to meet it at its coming. Share in the labors, then share in the honors. Transcend the limits of the known—the unknown has no bounds. Between its utmost stretch and the narrow circle that embraces all present knowledge there is a wide penumbral region which invites possession. The light of accumulated science casts its kindly effulgence upon this unexplored territory, and each newly discovered fact, principle or device darts a ray beyond revealing the outline of some hill-top of science, an objective point toward which to direct the triangulation of research and effort. Who shall first enter this unoccupied territory? No one need sigh for worlds to conquer. There is an infinite beyond. You have already enlisted, proceed and occupy. Take with you the patient and powerful ministries of the microscope and the laboratory, the highest tribunal of appeal; the genius of science will be guide, companion and aid. Explore new fields; a discovery is a prize extorted from the vast unknown, and will bring honor and renown proportioned to its magnitude. Harvey, Jenner, Laennec, Pinel, Simpson, Morton, McDowell, Sims and a host of others have themselves embalmed their names in their deeds. Emulate the example of these immortal worthies. In the progress of medical science it cannot be justly charged that St. Louis has been a laggard in the grand procession. If it cannot boast of its Virchow, its Koch, its Pasteur, its Cooper, Hunter, Ferguson, Warren, Mott or Rush—acknowledged high priests in our profession—it can with pride point to Beaumont, McDowell and others of scarcely less ability and worth. Upon you, young men, devolves the responsibility of bearing and advancing to greater heights the banner received from your fathers in medicine and surgery. You enter into their labors, you easily mount the walls laboriously erected by them, and from thence accoutered with perfected appliances

of sister sciences you may attain to elevations not dreamed of by them. Be faithful to yourselves and your high destiny. Since this happy conjunction of factors exist surpassing in number, magnitude, power and possibilities of achievement than of any previous period, who shall say that the prediction made early in this appeal will not be fulfilled.

"Tete d'Armeé."

Alarm!

We cordially congratulate all the medical schools of the city upon the unprecedented success that has attended them during the session now closing. Some of the graduating exercises we have attended, and are able to bear flattering testimony, in harmony with that which report brings of others, to the increase in number of students, to their better preliminary education, higher degree of natural endowment, greater application to study and more faithful attendance on lectures than is usual.

To the most worthy school we wish the highest meed of success.

Formerly, to give greater efficiency to the fire department in large cities, an officer was stationed upon some lofty and central eminence, whence he could command an unobstructed view of the entire city and give timely alarm of an incipient fire. Similarly poised upon our eminence of impartial observation, an unambiguous rumor, notwithstanding the success achieved, comes to us that in one or more of the faculties there are factors unworthy the position. We read "Now Naaman was a great man with his master the king, *but* he was a leper." It is not our province to enter upon a crusade against individuals or to dictate to existing authorities their duties; but if there be such persons holding such relations, obnoxious to associates, students or to the profession at large, we, giving the note of alarm, simply say, let there be no leprosy within your borders; none who disregard the sentiments of veracity or of natural duty, that "without spot or wrinkle, or any such thing," every school may invite the patronage of a discriminating public.

"A word to the wise is sufficient."

Sanitation.

The populous cities of Europe are awakening from the sleep and torpidity that has oppressed them for ages upon the subject of sanitation. Naples especially, in recent time, has rendered herself conspicuous in taking the initiative. Calamities may overwhelm; they may arouse into activity. The great fire of London in 1666, and the plague of 1667, demolishing and depopulating for the time, yet accomplished more for the city than the tardy legislation of years could have done. The cholera of 1887 in Naples commanded the attention of King and people to the unwholesome condition of the city in regard to character of streets, dwellings and surroundings. It is related that 271 streets are involved in this hygienic crusade, of which 142 are doomed to annihilation; 17,000 dwelling houses yield to the fiat of destruction, to be replaced by model, wholesome houses; $100,000,000 is the estimated amount of cost, a sum wholly incommensurate with the infinite gain in salubrity without which no city can exist. Paris has spent $600,000,000 in its improvements for a like object, but how inconsiderable the amount expended, when compared with the inestimable benefits resulting.

St. Louis College of Physicians and Surgeons.

Being honored with a special invition to attend the public exercises of the graduating class at Memorial Hall on the evening of the 10th inst., we yielded to the behests of duty and inclination, and gave it due acknowledgment by our presence. Before the hour of 8 P. M. arrived, every permanent seat was occupied, and for later comers movable seats were furnished in large number, but far from being sufficient to accommodate all who were attracted thither; and before the diplomas were presented, the aisles, lobby and entrance were filled by ladies and gentlemen standing, who were friends of students, faculty or trustees of the institution.

Flowers in profusion, arranged in all artistic designs, adorned the stage, soon to be awarded by friends to those who should receive medical honors. The Dean, Prof. A. S. Barnes, M.D., was conductor of the exercises, who, after introductory music, and prayer by Rev. M. Rhodes, D.D., in a felicious manner addressed the audience, briefly narrating the history of the college. Twelve years since commencing with sixteen students, it has steadily increased in members till this year the number of matriculants has reached the number of one hundred and ninety-one. In the absence of the President of Board of Trustees, Hon. Jas. O. Broadhead, the Dean, presented diplomas to the graduates numbering sixty-eight; being a body of young men, generally of athletic mould and intelligent aspect, and well-fitted to do valiant service in the beneficent career of the healing art. May great usefulness and prosperity attend them. Valedictories on the part of students and faculty were afterwards pronounced.

MEDICAL ITEMS.

Obituary.—Dr. Aug. M. Bierwirth died suddenly in this city on March 13, in his 45th year.

Prof. Angerer has been definitely chosen to succeed the late Prof. von Nussbaum, in the chair of surgery in the University of Munich.

Herr Viereck, formerly a representative of "Social Democracy" in the German Chamber of Deputies, has

addressed a petition to the Reichstag, praying that the use of Koch's lymph be prohibited, as being dangerous to the public.

Koch's Tuberculin.—The further use of Koch's tuberculin has been officially forbidden in all the hospitals of Warsaw.—*British Medical Journal.*

On February 27, the Senate passed the Immigration Bill to exclude all paupers, criminals and diseased persons from coming to this country.—*The Advance.*

There are altogether in the United States and Canada forty-seven faculties of medicine which receive students of both sexes, and nine devoted exclusively to the medical education of women.

All the beds in both the Pius and Protestant Hospitals are occupied this week. There are twenty-five patients in the Pius Hospital, and seventeen of these are under the care of Dr. Bernays.

Lightning.—It had been calculated that the electromotive force of a bolt of lightning is about 3,500,000 volts, the current about 11,000,000 amperes, and the time to be about 1-20000 part of a second. In such a bolt there is an energy of 2,450,000,000 volts of 3,284,182 h. p.—*Scientific American.*

Corrigendum.—A serious typographical traumatism was inflicted by the compositor upon the "Anti-a-septic" article contributed by our valued correspondent at Hannibal, Mo., and which was published in the Review of March 7. As this contribution will well bear repetition we print it entire with the corrections.

In Lyons, France, on January 1, 1891, there were 975 students, of whom, 763 were engaged in the study of medicine and 212 of pharmacy..

The mortality in Lyons for the week ending February 7, 1891: Pulmonary catarrh, 16; pneumonia, 17; Broncho-pneumonia, 4; phthisis, 31; cerebro-spinal diseases, 20.

Special Correspondent.—Dr. Henry E. Fuller will represent the interests of the Review during his present visit East. He will call upon members of the profession and many of the larger establishments whose products concern the medical profession. We commend him to their kindly consideration and trust that the results of the acquaintance may be mutually beneficial.

The Code.—The ideas of some members of the St. Louis profession are greatly at variance, it would seem, with the spirit and letter of the Code. We mean those that manifest an irrisistable penchant for spreading reports of their cases before the general public in the daily newspapers. Of course the practice can only be looked upon as one of the methods peculiar to the quack.

Camphor.—There has lately been a dearth of camphor among the Chinese, who were wont to obtain it from the island Formosa. The Chinese settlers there have exhausted the trees growing round about their own districts, and have neglected to plant fresh trees as the old ones failed. The camphor trade has been a government monopoly, but the scarcity of trees has diminished the amount gathered to about one-quarter of its former amount.—*The Advance.*

A Mother at Sixty.—An old Swedish woman, living near Lapeer, Mich., recently gave birth to her first child after having been married thirty-eight years, says the *Medical Record.* The woman claims to be 60 years of age. The baby, a boy, weighed only three pounds at birth, and was shrivelled, but otherwise healthy. The woman says that she was born when her mother was fifty-two years of age, and that her grandmother gave birth to twins at the age of sixty-three.—*Boston Journal of Health.*

Allopathic, Homœopathic and Eclectic.—The Legislatures of New York, Wisconsin, California and Florida have established three boards of examiners representing the three prominent medical faiths, Allopathic, Homœopathic and Eclectic, for the examination of candidates for practice within these several States. Graduates of medical colleges of New York and other States and those from foreign countries must submit their diplomas to one of these Boards and acquire a license of the Regents of the State University before they are allowed to practice medicine or surgery within the State. Diplomas endorsed by the faculty of any medical college of the State after January, 1890, are invalid and the holder thereof is not legally authorized to practice in that State.

LITERARY NOTES.

The Bacteriological World. Edited by Paul Paquin, M.D., V.M. Columbia, Mo.

The poet has said, a brave man was, he who first launched his frail bark upon the treacherous sea; but far braver man he, who, beneath the classic shades of Missouri University launched "The Bacteriological World" upon the ocean of public patronage. Not appalled by the novelty of the subject, its imperfect comprehension by most, its utter denial by some, or the number of journals already in the field, aspirants for public favor, scientific and financial aid, Dr. Paquin has boldly and hopefully sent forth his unique bantling replete with scientific information, and in a mechanical dress leaving nothing to be desired. To him who is satisfied with the present status of medicine, is convinced that perfection is already attained, that there are no more medical problems to be solved or medical worlds to conquer, neither bacteriology nor any other ology will

have any charms or attractions; that man is a fossil "he is joined to his idols, let him alone;" but by him who, according due honors to the past, regards the present fabric as only the foundation upon which to adjust and construct the achievements of the future, the promulgation of every discovery will be hailed with the most approving acclaim.

This is a truth extorted from the great treasure-house of the unknown, where the Infinite resides, into which the farther the projected ray of science extends, the nearer is the approach to the great source of all wisdom.

But we must forbear. "The Bacteriological world" the sole and valiant pioneer in its peculiar province, reflects honor upon editor, State and country, and cannot fail to be a welcome visitor to the entire profession, and is cordially commended to their liberal patronage.

W. D.

BOOKS AND PAMPHLETS RECEIVED.

Vol. VIII, Transactions Iowa State Medical Society for 1890. Published by the Society at Cedar Rapids. C. F. Damall, Secretary, West Union, Iowa.

Fourth Edition, Essentials of Surgery. By Edward Martin, A.M., M.D., Instructor in Operative Surgery, etc., University of Pennsylvania. Philadelphia. Published by W. B. Saunders, 913 Walnut St. 1891.

Vol. III, Transactions of the Americal Association of Obstetricians and Gynæcologists for the year 1890. William Warren Potter, Secretary, Buffalo, N. Y. Printed by Wm. J. Dorman, Philadelphia, Pa. 1891.

Second Edition, Diseases of the Digestive Organs in Infancy and Childhood, with Chapters on the Investigation of Diseases, The Diet and General Management of Children, and Massage in Pædiatrics. By Prof. Louis Starr, M.D. Published by P. Blakiston, Son & Co., 1012 Walnut St., Philadelphia, Pa. 1891.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, March 7, 1891, the President, L. Bremer, M.D., in the Chair.

Dr. A. B. Shaw read a paper narrating a case of facial spasm, as follows:

Case of Facial Spasm.

S. E. K., æt. 34, worker in brass, affords no history of venereal or rheumatic troubles. Habits good; never drank to excess, but takes an occasional glass of beer. His affection consists in an almost continuous twitching or clonic spasm of the right side of the face; almost entirely, if not exclusively, limited to all those areas, to which sensation is supplied by the fifth nerve, except the parts supplied by the supra and infra-troclear branches. Sometimes, though rarely, it involves the side of the chin and cheek, which are supplied by the superficial cervical and great auricular, from the cervical plexus. Every few minutes, under ordinary circumstances, and more frequently if under excitement, a tonic spasm lasting from ten seconds to two minutes occurs in the regions supplied by the infra orbital, tempero malar and lachrymal branches, completely closing the eyelids, causing blepharospasm. Nictitation is most continuous while awake, except when rendered impossible by the blepharospasm.

The trouble began eleven years ago as a trifling convulsive tic, affecting the region immediately below the lower lid of the right eye. It continued to annoy him for a year, and then ceased entirely for four or five months. It then reappeared and rapidly involved new territory, spreading down the face, and outwardly over the malar bone; in other words, those regions supplied by the infra-orbital and tempero-malar and lachrymal branches of the fifth nerve. The facial spasm now became rapidly worse, was even more pronounced and annoying one year ago than it is at present. At times there are exacerbations and remissions, but at no time, except the period of four months just alluded to, was there anything approaching to a distinct intermission. Last summer he first noticed slight muscular twitchings in the right arm and intercostal muscles of the right side.

Vision is good, though four years ago he had granulated lids. Taste and hearing normal. Says he never did hear quite as well as some people.

The tongue on its right side is slightly involved, and some years ago his speech was somewhat imperfect, on account of difficulty in enunciation from irregular movements of the tongue; but of late years the lingual spasm is scarcely noticeable.

There is slight anæsthesia of the right side of the face over the area convulsed; but the patient is not aware of the clonic spasm when of minor grade, frequently insisting that the face is not moving, while an observer will observe almost an incessant play of the muscles.

In 1867 this patient, then 10 years old, was violently thrown from a horse, became unconscious and so remained for four hours.

In 1870 he was injured on his chin by a fall.

In 1872 he was injured by a mule treading on him, injuring his back and one of his hands. He did not think that he was badly hurt at the time, but a few minutes afterward he fainted, and subsequently was compelled to remain in the house for a month, on account of injury in his back.

In 1870 he was thrown from a mule, receiving a scalp wound at the upper margin of the forehead, about one inch to the right of the median line. At this point there is now a scar about as large as a dime. Connected with this scar, and extending almost up to the coronal suture in a direction one and a quarter inches from the sagittal suture, and down to the supra-orbital, one and

one-quarter inches from the median line, is a linear fault in the soft tissues, which feels like a groove in the frontal bone.

In 1880, a few weeks before he first noticed any twitching, he was again injured by a piece of kindling wood forcibly impinging on the right side of his face; one piece lacerated the flesh at a point one half of an inch to the right of the outer canthus of the right eye, at which point is to be observed a small crescentic scar; another piece struck him directly over the malar eminence, where is now a scar somewhat larger than the one first mentioned.

Careful examination fails to discover any points about the head or elsewhere that are tender on pressure. The patient never suffered much from toothache, but the first and second right upper molars were extracted last summer, on the advice of a physician, because they were decayed.

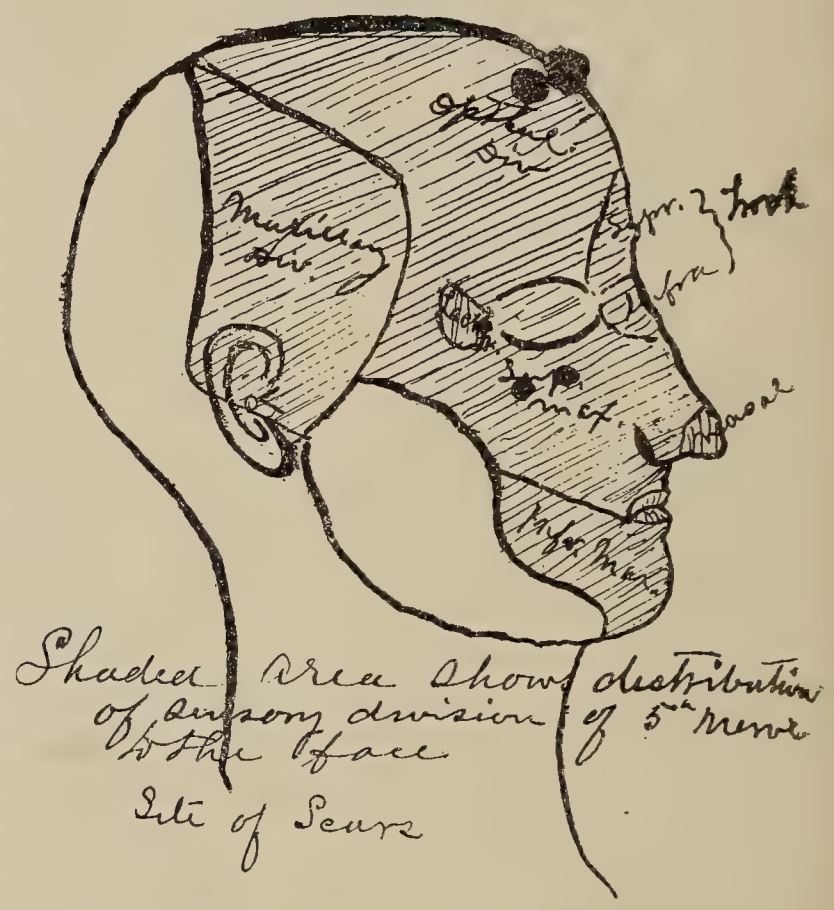
While this case is readily recognized as one of facial spasm or convulsive tic, the question naturally arises, is it of central or peripheral origin, *i. e.*, is it a manifestation of some irritative lesion within the skull, or is it the result of reflex irritation.

In the absence of disorders of the mental faculties, special senses and convulsions of the limbs, it seems quite certain that the spasm is occasioned, either by irritation of the seventh nerve, at a point distal to its site of apparent origin, viz., the lower or posterior margin of the pons varolii, or through reflex perturbation of some of its nuclei or origin in the floor of the fourth ventricle, transmitted or instituted by the great cranial nerve of sensation—the fifth.

While I would not insist that an irritative lesion thus situated, and sufficiently potent to produce convulsive tic, would necessarily develop perturbation in the function of either the tympanic, the petrosal or the chorda tympani branches of the seventh nerve, or possibly all of them; still, from the fact that there is no perturbation in the function of any one of these branches, I feel confident that if the spasm be due to irritation of the seventh nerve, the lesion causing it must be found at a point distal to that at which the chorda tympani is given off; and that it is not between this point and the stylo-mastoid foramen is equally certain, because the posterior auricular nerve which is given off from the portia dura, after its exit from the skull, does not seem to be involved; and as no pathological condition of the main facial branches of the nerve, superficially situated, can be discovered, we are, by a process of exclusion, almost compelled to presume that the spasm is of reflex origin, presumably occasioned through centripetal impulses projected along the sensory fibers of the fifth nerve.

The most commonly recognized causes of facial spasm of the reflex variety are dental caries, periostitis, lingual ulcers, aural or nasal disease and affections of the visual apparatus. Irritations elsewhere, as those of the intestine, from worms, have also been known to hold a causal relation; but observation in this case has failed to discover the presence of any of these.

In the absence of symptoms suggesting central lesion, and the absence of the commonly recognized causes just mentioned, with the history of traumatisms and the presence of indubitable evidence of their occurrence, we are justified in inferring that the spasm in this case arises from some persistent focus of irritation of the fifth nerve.



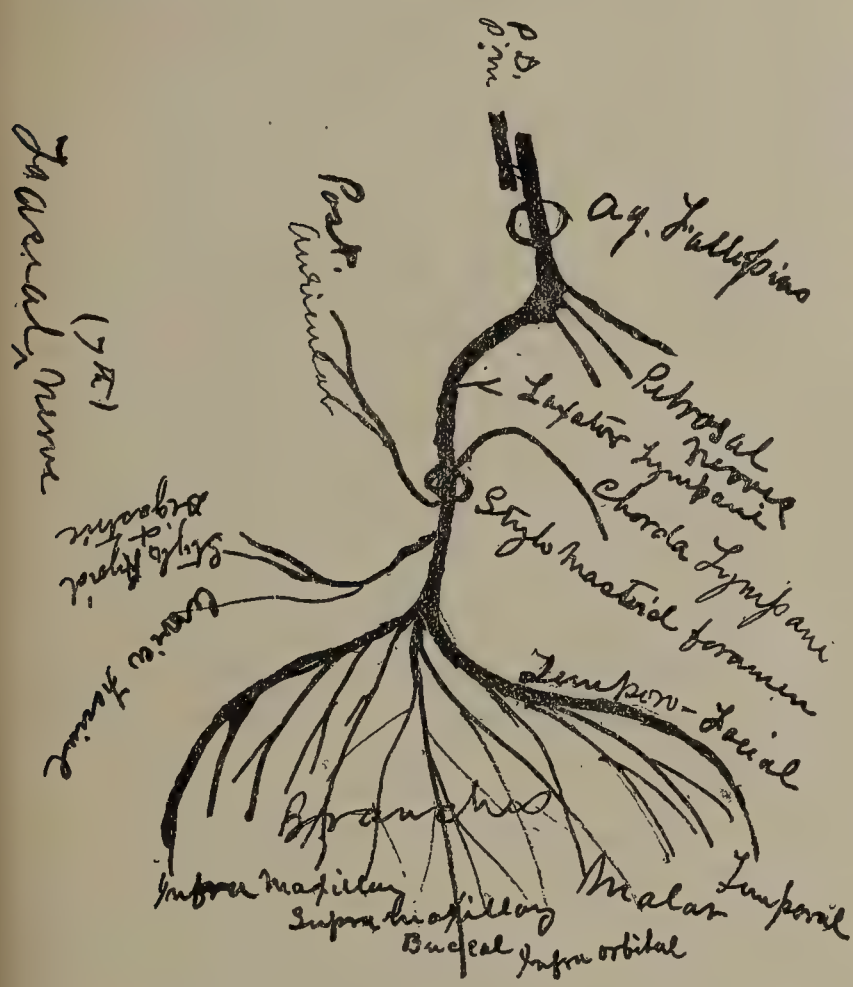
When the distribution and various functions of the great sensory central nerve are considered, we note that it guards every orifice about the head and face. To the eye especially it stands as the sentinel, constantly on duty to give warning of the impending danger to its well being(*e. g.*) from excess of light, or from direct trauma to the organ itself, or to its accessories, and orders the instant closure of the lid (*tutamina oculi*). To such an extent does the seventh nerve function work in sympathy with, and in response to, irritations of the fifth, that it might be aptly styled its motor complement.

Much effort has been expended in homologizing the cranial nerve with the spinal, especially from the side of embryology, and various views expressed as to their relations to one another; but no results sufficiently definite have been deduced to warrant any dogmatic statements.

However, as we are now able to demonstrate the existence of a reflex arc in the spinal segments, we are warranted in assuming the pressure of such reflex arcs among the cranial nerves; and clinical experience clearly demonstrates that irritations of the fifth nerve frequently induce reflex contractions in those parts irritated by the portio dura.

Both of these nerves have nuclei of origin in the floor of the fourth ventricle. An examination of their super-

ficial distribution to the face and head shows a wonderful close resemblance in the territory occupied by each, and illustrates a law of nature in arranging nerves in accordance with harmony of action.



Presuming that the "fault" in the tissues described is in the pericranium, and as the pericranium in this locality is supplied by the pericranial division of the ophthalmic; and assuming also, in accordance with that law of nature just referred to, which arranges nerve distribution in accordance with harmony of action, that irritation of a branch of the ophthalmic division (other things being equal, provided such irritation resulted in reflex spasm) would induce such spasm in those muscles which would naturally be brought into action in affording protection to the eye, these being the muscles first, most continually and to the highest degree convulsed, and most frequently thrown into tonic spasms; the conclusion is reached that the facial spasm, in the case before, us originates from a pathological condition of the pericranial division of the ophthalmic nerve on the right side, induced by the results of the trauma which produced the scar and probably the linear "fault."

The remedial indications, therefore, are, first, the removal of the cicatrix and linear "fault" in the pericranium. Should this mode of procedure fail to remove the real source of irritation, I next propose to remove the cicatrix over the malar eminence; since subtle influences, incorporated in this cicatrix, may be the initial occasion of the pathological phenomena presented.

Dr. Barclay said he had now under his care a patient, who is affected with facial spasm, but to a less degree than in this gentleman. Accompanying it is a polypus and chronic otorrhœa. He removed the polypus from the ear, being as long and as large in circumference as the distal phalanx of the little finger, filling the external auditory canal. It remains to be seen what effect its removal and subsequent treatment will have upon the convulsive tic.

Dr. Fry stated, all treatment of this case must be surgical and tentative, and approved of the course proposed to be pursued, viz., removal of the cicatricial tissue and dissect away all the branches of the supra-orbital that can be found, pericranial, cutaneous and muscular. In a surgical point of view the doctor is fortunate in having the duty and responsibility to minister to a case of convulsive tic, though it is well known to be an intractable affection.

Dr. Dickinson said recently he had a case of simple blepharospasm confined to the lids, but accompanied with pain. In this case he used cocaine instilled into the palpebral opening, and with complete success. The cocaine controlled it completely, but only temporarily at first; prolonged the intervals of freedom from three or five minutes to five hours. The spasm returned, but by continued use the gentleman was enabled to return home quite free from the trouble. The speaker had not heard from the patient, but through a friend he heard he had entirely recovered. Some years since the speaker had another case of blepherospasm which was of a tonic character; without the least appreciable provocation the lids would forcibly close and so remain for half an hour or even longer, defying all active attempts to open the lids; but gentle manipulation, stroking the closed lids, proved to be the best method of inducing the subsidence of the orbicular spasm, after which the lids could be opened. This man was 60 years of age, and when he first presented himself, the orbicularis was divided entirely, introducing a curved bistoury at the external canthus; the man returned home within ten days entirely free from any spasmodic manifestations. But as soon as the section healed, the phenomenon returned. A few months later the patient returned. Encouraged by the experience of Graefe and others in section of the supra-orbital nerve, this nerve was divided at its exit upon the frontal bone, but without good results. The gentleman returned home and in the course of a year or two died from cerebral symptoms, but of what special character the speaker had never learned. The blephero-spasm supervened during convalescence from an attack of typhoid fever, very slight at first, but increased in frequency, duration and severity; until, ultimately, they became quite constant; the lids remained closed for hours. It was unsafe for him to go out at all without a companion, lest he should be arrested in his progres and not able to return home. His case was doubtless of cerebral origin, the initial, seminal cause being a lesion in motor territories, occasioned by a stroke of lightning received five years previously.

Dr. Mooney presented a ruptured ovary removed from a patient on the night of February 16. The woman was about 32 years of age, the mother of one

child, in comparatively good health; often irregular in periods of menstruation, but menstruating at the time. In the morning of the 15th, about nine o'clock, while in the water-closet, she was suddenly attacked with severe pains in the abdomen, followed by vomiting, and much difficulty in breathing. Being seen by Dr. Claycamp soon after, he prescribed a stimulant, on account of the feeble action of the heart. In the evening he saw her again, and concluded she was suffering from internal hæmorrhage, and called him in consultation about twelve hours after the first attack. No difficulty or doubt was experienced in diagnosing hæmorrhage in the abdomen, manifesting symptoms of collapse and dulness over the dependent portions. A laparotomy as soon as possible was decided upon, and performed between eleven and twelve o'clock that night. Her temperature at the time was 96.5°, and her pulse very feeble, indeed scarcely perceptible. An anæsthetic was immediately administered; the abdomen being opened a large amount of dark blood and blood clots escaped, in quantity at least a gallon. The left ligament and ovary were normal. In the right ovary was a rent about three-quarters of an inch in length, apparently of a cyst an inch in diameter. This had been the source of the hæmorrhage, though none was going on at the time; there was simply some oozing. The ovary was removed in the usual manner. After cleansing out the abdominal cavity, a drainage tube was inserted, and the patient placed in bed. She seemed to rally for awhile, the pulse becoming better, not less rapid but more full; temperature 96.5°; but in the early morning she sank rapidly and died about seven hours after the operation.

Dr. Dorsett said.—Nearly all cases of hæmorrhage, whether from tubal gestation or ruptured ovary, are fatal; because of the fact, which is greatly to be deplored, that we can never operate on these cases at a sufficiently early period. At the time the physician is called there is generally very little to be done; for then hæmorrhage had usually progressed to such a degree that very little hope of life is left.

Dr. Claycamp said he was informed, after the death of this patient that two of her sisters had died from internal hæmorrhage, because operated on too late. He did not know that hæmophilia was a peculiarity of the family.

Dr. Bremer presented specimens and said.—The specimens shown were taken from the body of a man, who, unfortunately, in this case, as in many others that go the City Hospital, furnish no history. The subject was an old man of 76 years, who entered one day and died on the next. No external signs giving a clew to the disease from which he suffered and died, a post-mortem was held to ascertain the cause. With the lungs nothing abnormal was found, but the heart showed a moderate degree of hypertrophy of the left ventricle, and the walls in a somewhat softened state. There is also an immense dilatation of the aorta; and all the parts connected with the beginning of the aorta, including the valves, present a rather enlarged appearance—larger than is absolutely necessary for the performance of the functions of the several parts of the heart. The slight hypertrophy of the heart is explained by the condition of the kidneys. These exhibit a typical example of granular kidney—that is to say, a chronic parenchymatous nephritis. A peculiar feature is the immense amount of fat present in the pelvis. The cortical substance, in some places, is almost gone, dwindled down, perhaps, to one-third or maybe one-fourth of the normal size. The small bit of tissue here seen is the spleen; a typical example of the senile involution of that organ. It has experienced a great many pathological conditions in the life time of the individual, as revealed by the thickened capsule, and other evidences of repeated attacks of inflammation. It is really hardly intelligible how a powerful man of large frame, such as the patient had, could exist with this excuse for a spleen. It only demonstrated, what is known experimentally, that a man is capable of living without a spleen. Several operations have been performed in this city for removal of this organ. The speaker knew the particulars of one, the case of a woman, a farmer's wife, who is now doing well, doing extremely heavy work, and working the same as if she had her spleen. It also shows on how small a capital of healthy kidney a person may live. This kidney is in an extreme state of granular degeneration. How much senility has to do with this state of the kidney of course can not be estimated. The kidneys of many old persons, especially if they have passed 70, are found to be in a state of disease, and affected with this trouble—a parenchymatous inflammation of a chronic kind. The patient was well nourished, and weighed 170 or 180 pounds. At some period he had had meningitis, or, if not a meningitis, œdema of the brain. From this proximate cause the patient died.

SOCIETY NEWS.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

We are indebted to the New York *Medical Journal* for the following list of National and State Medical Societies, and the places and dates of their meetings for the current year:

For the convenience of those who may desire to consult it, we reproduce the list entire:

Florida Medical Association, Pensacola, April 14 and and 15.

Medical Society of the State of Tennessee, Nashville, April 14, 15 and 16.

Medical Association of the State of Alabama, Huntsville, April 14, 15, 16 and 17.

Medical Association of Georgia, Augusta, April 15, 16 and 17.

Iowa State Medical Society, Waterloo, April 15, 16 and 17.

Medical Society of the State of California, Sacramento, April 21, 22 and 23.

Medical Association of Montana, Helena, April 24 and 25.

Medical and Chirurgical Faculty of Maryland, Baltimore, April 28, 29 and 30.

Texas State Medical Association, Waco, April 28, 29 and 30, and May 1.

State Medical Society of Arkansas, Hot Springs, April 29 and 30, and May 1.

Medical Society of the State of Washington, Seattle, May 6, 7 and 8.

Missouri State Medical Association, Excelsior Springs, May 12, 13 and 14.

Indiana State Medical Society, Indianapolis, May 13, 14 and 15.

Kansas Medical Society, Wichita, May 13, 14, 15 and 16.

Illinois State Medical Society, Springfield, May 19, 20 and 21.

West Virginia State Medical Society, Fairmount, May 20, 21 and 22.

North Carolina State Medical Society, Asheville, May 26, 27 and 28.

Connecticut Medical Society, Hartford, May 27, 28 and 29.

Pennsylvania State Medical Society, Reading, June 2, 3, 4 and 5.

State Medical Society of Wisconsin, Madison, June 3, 4 and 5.

Delaware State Medical Society, Rehoboth, June 9 and 10.

Maine Medical Association, Portland, June 9, 10 and 11.

Massachusetts Medical Society, Boston, June 9 and 10.

South Dakota State Medical Society, Chamberlin, June 10, 11 and 12.

Rhode Island Medical Society, Providence, June 11 and 12.

Michigan State Medical Society, Saginaw, June 11 and 12.

New Hampshire Medical Society (centennial), Concord, June 15 and 16.

Colorado State Medical Society, Denver, June 16 and 17.

Ohio State Medical Society, Put-in Bay, June 17, 18 and 19.

Minnesota State Medical Society, Minneapolis, June 18, 19 and 20.

Medical Society of New Jersey, Long Branch, June 23 and 24.

Vermont State Medical Society, Burlington, October 15 and 16.

Mississippi Valley Medical Association, St. Louis, October 14, 15 and 16.

Tri State Medical Association of Tennessee, Alabama and Georgia, Chattanooga, October (date to be fixed).

Medical Society of Virginia, Lynchburg, October 27, 28 and 29 (subject to change).

New York State Medical Association, New York, October 28, 29 and 30.

Louisiana State Medical Society (place and date to be determined).

National Associations.

American Academy of Medicine, Washington, May 2 and 4.

American Medical Association, Washington, May 5, 6, 7 and 8.

National Association of Railway Surgeons, Buffalo, N. Y., April 30 and May 1.

American Gynæcological Society, Washington, September 15, 16 and 17.

American Orthopædic Association, Washington, September 15, 16 and 17.

American Association of Andrology and Syphilology, Washington, September 22, 23 and 24.

Congress of American Physicians and Surgeons, Washington, September 22, 23, 24 and 25; in connection with this congress will be held the meetings of the American Climatological Association, American Otological Society, American Ophthalmological Society, and American Neurological Association.

American Dermatological Association, Washington, September 22, 23, 24 and 25.

American Laryngological Association, Washington, September 23, 24 and 25.

Southern Surgical and Gynæcological Association, Richmond, November 10, 11 and 12.

HYGIENE.

SANITARY CONVENTION.

Sanitary Convention held at Battle Creek, Michigan, June 25, and 26, 1890. Proceedings and Addresses. President, Judge Benjamin F. Graves.

After the President's address, Henry B. Baker, M.D., Secretary State Board of Health, read an elaborate, comprehensive and valuable paper upon the subject, "The Restriction and Prevention of the Dangerous Communicable Diseases."

After commenting on the indispensable necessity of isolation in preventing spread of communicable diseases, he says small-pox is not the most dangerous communicable disease, but might become so, if general vaccination was neglected. Whooping cough during the past fifteen years has caused many more deaths than small-pox. The diseases which cause the most death, in Michigan are in the following order: 1, consumption; 2, diphtheria; 3, pneumonia; 4, typhoid fever; 5, scarlet fever, and continues, "we absolutely know that a large proportion of the cases and deaths from the most of these diseases are preventable, and we believe this is true of all these diseases. Then as regards the most dangerous one, consumption, we know that about one-eighth of all the deaths in Michigan are from that one disease."

Typhoid fever causes about ten times as many deaths in Michigan as small-pox—probably about one thousand deaths per year—and most of these deaths should be

prevented. The greatest number of deaths from typhoid fever is of persons in the prime of life. It is now be lieved that typhoid fever is most frequently spread by means of the drinking water. In demonstration of the powerful agency of systems of sewerage in promotion of health, he quotes: "In the city of Munich the death rate from typhoid fever in the period from 1854 to 1859 was 24.2 per 10,000 inhabitants, while in 1884, after the establishment of sewerage, it declined to 1.4 per 10,000 inhabitants."

In respect to diphtheria he says: Almost 85% of all the deaths from diphtheria are of children under 10 years of age. In Michigan diphtheria causes about seven times as many deaths as small pox, and is more contagious and spread by indirect means.

In respect to scarlet fever, the statistics of the Michigan State School, at Flint, for the Deaf, show that 16% is attributed to this disease, and 6.1% of those in the State School for the Blind, at Lansing, became so from scarlet fever. This disease in Michigan causes about nine times as many deaths as small-pox. Four-fifths of the cases and deaths from scarlet fever are known to be preventable through the measures of isolation and disinfection.

The Governor, Hon. Cyrus G. Luce, manifested his interest in the cause of Sanitation by his presence and interesting address.

On the second day the Convention was addressed by Dr. J. H. Kellogg, Superintendent of the renowned "Medical and Surgical Sanitarium" at Battle Creek, on the subject of "The Germ Theory of Disease and Its Bearings on Modern Life." This subject he elucidated with a master's hand, adopting technicalities and diluting great abstract and scientific truths to the comprehension of his hearers. After which a paper was read by W. W. Bryden, C. E., Battle Creek, subject, "The Best Method of Sewerage in Battle Creek."

The discussion following called forth the statement that the great epidemic of yellow fever cost the City of Memphis, Tenn., five thousand lives in ten weeks. The city was then one of the dirtiest cities on the globe, had five thousand private cess pools; but now since the introduction of sewerage the death rate has fallen off one-fifth.

Five years ago the City of Nashville spent over a million dollars on its fewerage and water supply. Fifteen years ago its death rate was 35 in 1,000. To-day the population has more than doubled, the people are much more closely crowded than they were fifteen years ago, and yet the death rate is much less than half as high.

The Convention was addressed on the subject of "School Hygiene" by Mrs. Mary E. Green, M.D., of Charlotte, and afterward by Hon. John Avery M.D., President State Board of Health (Greenville) on the subject "Ventilation of Residences and Public Buildings," and by A. W. Alvord, M.D., Battle Creek, subject "Habits in Relation to Health."

The State Board of Health, eminently a life saving institution, is thoroughly appreciated by both people and their representatives in legislature assembled. The legislature has furnished the Board with proper power and machinery for carying out its wise recommendations. There is probably no State in the union, unless Illinois is to be excepted, where better health legislation has been secured than in Michigan, and as a result, there is no State which can now point to so great a saving of human life. Meanwhile, neither by example of sister States nor by precept or petition has this State responded in any fitting manner to the demands of public sanitation. By a spasmodic exertion of public spirit and partial appreciation of the achievements of other States Missouri, some years since, brought into existence a board of health, which after generously allowing it an existence of one term, permitted its activity and potentiality to die through inanition. It still nobly maintains a nominal existence, for it is determined not to die an inglorious death, though our grave legislators have not risen to the magnanimity and sense of justice as to refund to the members of the "board" amounts necessarily expended in the struggling effort to continue its existence, to say nothing of remuneration for services rendered in behalf of the well-being of the inhabitants. It is hoped the present Legislature will make full amends for the past and amply provide for the future.

W. D.

Medical Meetings.—The St. Louis Medical Society holds its meetings every Saturday evening at 8 o'clock p. m., to which medical men are cordially invited.

Guhman, M.D., Rec. Secretary. L. Bremer, M.D. President for 1891.

SELECTIONS.

EARLY DIAGNOSIS OF SOME SERIOUS DISEASES OF THE NERVOUS SYSTEM,

Abstract of an Address By B. C. Seguin, Providence, R. I.

[CONCLUDED.]

6. The post-spasmodic stupor is of considerable value in estimating the probability that a nervous "attack" is or is not epileptic. In the vast majority of cases of *grand-mal* a deep sleep of variable duration succeeds to the spasm and subsequent coma. In some instances the patient apparently regains consciousness, utters a few words or sentences, then lapses into sleep. On awaking there is no recollection of the remarks made. In other cases only a transient sense of dullness or sleepiness is experienced; and this is true of many cases of *petit-mal.* Very often in *petit-mal* there is not a trace of stupor after the momentary seizure; conversation being continued, or a muscular action kept up right away. There are cases of *grand-mal* in which no sleep occurs, but even in these rare cases a certain sluggishness in action

and speech is evident for a time after a seizure. In hysteria, on the ather hand, the patient usually is clear-minded and bright even after severe spasms, and always recalls what she may have said between recurring paroxysms.

In some cases of epilepsy and of hysteria, delirium follows the spasm, or *petit-mal*. In some epileptics transient seizures, overlooked by lay observers or careless physicians, are succeeded by delirious, co-ordinated actions seemingly intentional and deliberate; such as wandering off, stealing, committing murder (sometimes on a disliked person, thus apparently proving intent), yet, when the patient "comes to himself," hours, days or weeks after, there is complete amnesia of the things done and said. I am inclined to agree with Krafft-Ebing in holding amnesia a *sine qua non* for the diagnosis of epilepsy in such cases.

7. Post-epileptic sensations. Often after *grand-mal*, patients feel sore, either generally, or more especially in one member (if this has been the seat of the chief spasm), as if they had been beaten, to use a common ex pression. Often also, there is headache of no definite distribution, and also a sense of exhaustion and languor. These symptoms help us to determine the occurrence of nocturnal seizures in the absence of witnesses. I have known the recurrence of soreness in the ball of one thumb, on a number of mornings, to lead to the diagnosis (verified by witnesses later) of nocturnal *grand-mal*. A case came under my observation two years ago in which, on some five or six occasions, the patient (a bachelor) awoke with one humerus dislocated, suffering intensely from this, and also from general muscular soreness. On one occasion both humeri were dislocated. Strange to say, the diagnosis of nocturnal *grand mal* had not been made until all but the last dislocation occurred.

Other valuable evidences of nocturnal *grand-mal* are (1) the occurrence of minute specks or points of hæmorrhage under the skin of the face and neck, discovered on rising. This sign has an almost pathognomonic value. (2) Emission of urine in bed, without awakening. This in adults who have not had the habit of "wetting the bed," is strong presumptive evidence of an epileptic attack. In children it is, of course, a much less significant sign.

The occurrence of any of these symptoms (aching limbs and soreness, speck-like hæmorrhages, enuresis), should make us insist on having some one sleep with the patient long enough to obtain an observation, before a positive diagnosis is made.

8. Is any value to be attached, in the case of a patient who sleeps alone, to a dim recollection of an aura, or of something like an attack having occurred during sleep? Not infrequently our patients report some such dream-like reminiscence. I think that, usually, this is really a dream, that is, the patient dreams he has had an attack, and wakes with some faith in the dream. In my experience such reports have been made by patients who did not present the usual signs of a recent seizure. Unless the case be one of very strong and long signal-symptom or aura, I think that recollection of an attack is impossible, and it is generally recognized that amnesia is peculiarly complete in cases where it is known that nocturnal attacks do occur.

9. There is still another means, not generally known, of distinguishing between hysterical and epileptic attacks, especially in those hybrid cases (hystero-epilepsy), in which symptoms of both orders are commingled; also of determining the truly epileptic nature of attacks which have occurred without witnesses, or are described by careless and incompetent ones. I mean the therapeutic test. As far back as 1873, I satisfied myself that an anti-epileptic treatment (bromide treatment) aggravated hysteria, particularly its spasmodic form, and subsequent experience has strengthened my opinion. To state it briefly: a tonic treatment, especially by strychnia in full doses, benefits hysterical cases, while it causes (except in a small number of cases of *petit-mal*) increasing numbers of spasms, and more severe spasms in epilepsy. Contrarily, a bromide treatment reduces the number of, or completely prevents, attacks of a truly epileptic nature, and the same treatment aggravates hysteria. I would not be too dogmatic about the value of this rule, but it is certainly one of much practical value. Especially have I been satisfied with its application in the (not rare) cases of epileptoid spasms of young children between eight and fourteen, which are, especially in boys, much more often than is supposed, hysterical. In such cases we also have, as guides to a correct diagnosis, very prolonged spasms, co-ordinated or dramatic spasms, absence of enuresis and of post-epileptic stupor, and the fact that the eyes are firmly shut in the seizures.

It will be said that I have given too much time to the analytical study of the symptoms of epileptic attacks. The disease is so common, and its diagnosis so often difficult, that I think I am justified in detailing the foundations for a correct inductive diagnosis.

Let me add a few remarks of a more general nature.

The errors usually made in the study of epileptic cases are two, namely: (1) Underestimating or not appreciating the meaning of a first attack of *grand-mal*; (2) not recognizing the epileptic nature of slight, simple *petit-mal*.

1. I have elsewhere treated at some length of the difficulties attending the diagnosis or estimation of a first convulsion in childhood. (Opera Minora, p. 540, et seq., *N. Y. Record*, August 6 and 13, 1881). I have there related several cases in which attacks of *grand-mal* were treated by able physicians as eclamptic or symptomatic; usually of gastric origin. In many cases no proper treatment is directed until quite a number of spasms have occurred, spread out over long but diminishing intervals, and the "epileptic habit" has become established. I will not repeat the arguments (Loc. cit., p. 549, et seq.) I there advanced to show that after the third year of life, symptomatic (eclamptic) spasmodic attacks are rare. They do occur occasionally, in very

excitable, neurotic subjects after that age, but I repeat very rarely, until we reach the age when uræmia and syphilis appear as potent factors of epileptoid seizures. In the first two years of life there is great convulsibility, if I may be allowed the word, and such causes as intestinal, preputial (vulvar) dental irritations may give rise to spasms which are precisely like those of epilepsy. During the same period, and a little later in irritable subjects, the ones of acute disease (exanthemata, pneumonia, malarial fever, etc.) may be characterized by na epileptiform seizure. Consequently, if the attacks are very few in number, and always accompanied by a decided exciting cause, we may call the attacks eclamptic, and hope that there will be no succeeding ones. But after the third year, and during the first few weeks of life, an epileptiform attack, is, in my experience, the beginning of the long and fatal chain of attacks which we call epilepsy. After a second seizure, in my opinion, especially if the attacks were not accompanied by very strong evidences of peripheral irritation sufficient to cause a spasm, a cautious bromide treatment should be begun and kept up for several years.

In adolescents and adults the diagnosis of a first or second attack is less difficult. We need here to exclude hysteria, extreme excitability of the nervous system (allowing of a late eclamptic or reflex seizure), uræmia, and syphilis inherited or acquired. Yet in the syphilitic cases the attacks may rightfully be designated epileptic, as contradistinguished from spasms caused by reflex action. Even at the menstrual period, an epileptiform attack occurring in a girl is probably the beginning of epilepsy. In adults, uræmia is the factor to be most carefully eliminated, especially if the first seizure has been a *status epilepticus* with long continued stupor. In uræmia the spasm is less distinctly tonic at first, biting of the tongue is rare, small pupils are the rule. The temperature may be high as in epilepsy, and it should not be forgotton that uræmic spasm, like Jacksonian epilepsy, may be hemiplegic or one-sided. Examination of the urine is not as valuable a test as might be expected *a priori*, for albumen may appear in the urine as the result of a truly epileptic attack, and on the other hand, uræmia, so-called, may be present without albuminuria and only few casts. The examinations of the urine should be frequently repeated (three to four specimens in each day) during the two or three weeks succeeding the seizure. In this way evidence of chronic interstitial nephritis may be obtained. There are, I believe, rare cases in which eclamptic attacks precede the appearance of objective signs of renal disease in the urine, several such attacks recurring at long intervals before the diagnosis of cirrhosis of the kidney can be made. As regards syphilis, it is of the utmost importance to recognize it, but its discovery does not relieve us of the obligation of beginning a mild anti-epileptic treatment, as well as an anti-syphilitic treatment, after the first seizure.

In case of doubt in an adolescent or adult, as to the real significance of a first or second epileptiform attack (that is, as to whether it is truly epileptic or symptomatic), I think the best course is to begin a moderate, carefully watched bromide treatment, and continue it a long time. If properly managed in a subject not unusually affected by the bromides, I firmly believe that such a course will do no harm, and may, probably will, cure the beginning epilepsy. (The fear of dementia from bromism is prevalent in the minds of physicians and laymen. It is based on the results of reckless, unsystematic giving of bromides. producing toxic effects. I have repeatedly received patients in this condition, and still having attacks, and have been able, by care, to reduce the doses of bromide, restore their intelligence, and diminish the number of attacks still further. It should be remembered, and impressed on parents that it is the epilepsy which causes dementia, as was perfectly recognized by authors writing before bromides were used.) If we hesitate, and postpone an anti-epileptic treatment, how great a responsibility is thrown upon us. Each recurring attack diminishes the prospects of a cure in an enormous ratio, I believe, and after three, six, eight convulsions, spread out it may be over a period of two or three years, the case is probably incurable. I would repeat what I said at the beginning of this section, that if there is any disease the curability of which depends on its recognition at the earliest possible moment, that disease is epilepsy. Lastly, if it appears that we have given a long-continued bromide treatment to a non-epileptic person, after an eclamptic attack, no special harm has been done. It is a serious dilemma for the physici-an, but to my miud there is no doubt as to which course should be chosen for the patient's welfare.

2. The non-recognition of *petit-mal.* This is a very frequent error on the part of patients and of physicians as well. The "spells" are so slight that they surely amount to nothing; they come from the stomach; they will pass off when the child is older, etc. Numberless reasons are given for the neglect of these cases. Another fatal misconception is that such "dizzy spells" will cease when menstruation is established; a most absurd notion. If you will pardon a digression, I will speak here of the dangerous error, popularly universal and indulged in by too many physicians, that chorea and epilepsy are benefited by menstruation and by marriage. In my experience nothing could be more erroneous and dangerous, especially as regards marriage. Neuroses are aggravated by both these events, and we should use all our influence, I believe, to prevent marriage of epileptics. I have known marriage to be prescribed for epilepsy to both male and females subjects, in all cases with very bad results, physically and socially. Such practice is deserving of the strongest condemnation.

The question of the marriage of epileptics, apart from this fanciful therapeutic influence, is one often presented, and each case requires separate judgment. In general I am opposed to the marriage of any epileptic, yet exceptions occur. For instance, if the patient be a woman, and the prospective husband fully understands

the circumstances, if she is not herself very degenerate or come of degenerate stock, if her attacks are under control, and if the man be not neurotic or degenerate, I would consent to the marriage. I have studied the children issued of two or three such marriages, and see no reason to regret my action. In the case of a male epileptic the question is more serious. He is supposed to be the bread-winner and protector of the wife and family, consequently very slight remains of the dread disease should postively prohibit marriage. Given the case of a healthy young epileptic not degenerate, not of degenerate stock, who has had no attack for four years, under treatment, I might give consent but only on condition that the *fiancee* should know all particulars, and fully appreciate the possibility of a return of the disease, and of disability of her husband. It is, gentlemen, a question which comes very close to our conscience, and we should not allow any sentimental notion to bias our judgment. A newly married man or woman may honestly swear to care for an infirm (epileptic) wife or husband, yet after a few years of contact with the repulsive symptoms of the disease, especially the moral perversion which characterizes it (so few epileptics can be good, true or kind), it becomes humanly impossible to fulfill the promises, and cruel wrong results, besides the possible tainting of the offspring.

To return to *petit-mal*, the points for its diagnosis have been given above. I beg you not to underestimate these slight symptoms, but to institute a thorough treatment as soon as possible. A remarkable fact, noted by many observers, is that *petit mal* does not yield to bromide treatment as readily as *grand-mal*. Indeed, many cases show no improvement even when bromism is well marked, and I must admit that we, as yet, know of no indications for the use of other remedies. It is a hap-hazard, experimental treatment. Some cases yield, as if by magic, to strychnia, others to atropia, some to ergotin and digitalis. I have exhausted my materia medica in some few cases without materially reducing the number of attacks (often many each day). It is always a painful surprise for patients when you tell them, as you should, that these slight "spells," hardly worth mentioning, are much more difficult to control than convulsions, and that they are just as likely, if not more so, to affect the child's intellect.

For many of the minor points in the diagnosis of *petit* and *grand mal* in children I would again refer you to my former paper (Opera Minora, p. 540, et seq). As an encouragement I might cite here a case which has been under my care for the past two years; slight dream-like *petit-mal* in an adult, no convulsions. With a moderate dose of bromide of sodium (three grammes) on rising, and cannabis indica 0.02 three times a day, tonics and hygiene, an interval of nearly a year has been obtained. The patient had had for several years attacks almost every day. Dementia was slightly but distinctly marked when I first saw him, but his mental action has become better and easier in the last year, in spite of great business responsibilities.

Pardon me, if, before such an audience, I have touched upon so many trivial points. My experience as a specialist has shown me that the diseases treated of in this paper are not recognized as early as they should be and can be, if the general practitioner will give attention and time to the study of his cases by the analytical method. Especially in epilepsy is an early diagnosis urgently demanded, because it is the most curable of the diseases mentioned. Pray believe me when I tell you that you will never regret having made an early diagnosis of tabes, dementia paralytica, spinal disease, cerebral tumor and epilepsy; whereas we all look back with self-reproachful feelings to having failed to recognize these affections early, and to institute proper treatment, medicinal or hygienic.—*Boston Med. and Surg. Jour.*

HOSPITALS, HOMES, ETC.

St. Louis Poor House, Arsenal Street.

St. Louis Emergency Hospital, 410 N. 11th Street.

St. Louis Female, Old Manchester Road. Superintendent, W, B. Dorsett, M.D.

St. Louis Insane Asylum, Arsenal Street. Superintendent, Legrand Atwood, M.D.

St. Louis City, Layafette Avenue and Linn Street. Superintendent, H. C. Dalton, M.D. Medical and Surgical Clinics from 2 P.M. to 4 P.M. daily.

The above are city institutions.

St. Vincent's Asylum, South 11th Street.
Protestant Hospital, 1018 N. 18th Street.
Pius Hospital, 10th and O'Fallon Streets.
Good Samaritan, 26th and O'Fallon Streets.
St. John's Hespital, 22d and Morgan Streets.
Little Sisters of the Poor, 2209 Hebert Street.
Children's Hospital, Jefferson Av. and Adams St.
St. John's Hospital, Annex, Lucas Place and 23d St.
St. Luke's Hospital, Washington Avenue snd 19th St.
U. S. Marine Hospital, Marine Avenue and Main St.
Alexian Brothers Hospital, S. Broadway and Osage Street.
Augusta Hospital, (Children), Channing Avenue and School Street.
Evangelical Lutheran, Corner Potomac Street and Ohio Avenue.
Missouri Pacific Railroad Hospital, Lafayette Av. and 28th Street.
St. Louis Mullanphy Hospital, Grand Avenue and Montgomery Street.

Memorial Home, Grand Avenue.
Old Ladies Home, South St. Louis.
Protestant Orphans Home, Webster.
German Orphans Home, Natural Bridge Road.
Baptists Orphans Home, 1906 Lafayette Avenue.
St. Ann's Orphans Institution, 10th and O'Fallon Sts.
Episcopal Orphans Home, Grand and Lafayette Avs.
Methodists Orphans Home, Laclede Av. near Grand.
Young Woman's Christian Home, Washington Av. and 19th Street.

Disinfection of the Hands.—Franz Boll *Deutsche Med.* (*Wochenschrift*, No. 17, 1890). The author, in the course of some experiments upon the best means of disinfecting the hands of the surgeon, in which the methods employed by the bacteriologists were used to demonstrate freedom from germs by gelatine cultures, comes to the conclusion that the course pursued in Mikulicz's clinic in Konigsberg offers the best known practical means of accomplishing this object. This consists of vigorously brushing the hands for not less than three minutes with potash soap and water, after which they are immersed for a half minute each, first in a 3% solution of carbolic acid, and then in a 1–2000 sublimate solution. Finally, the subungual spaces and folds are thoroughly rubbed and cleansed with 10% iodoform gauze which has been dipped in a 5% solution of carbolic acid. Experiments made to determine the efficiency of simple soap and water cleansing showed this to be entirely unreliable.—*Broaklyn Med. Jour.*

The Treatment of Post-Partum Hæmorrhage.—In a discussion before the Obstetrical Society of Moscow, Muratow (*St. Petersburger med. Woch.*, No. 8, 1890) reported eight cases of post-partum hæmorrhage in which irrigation with a hot solution of creolin failed to check the hæmorrage. The uterus and vagina were then tamponed with creolin gauze. Pads and a bandage were placed upon the abdomen, by which external compression was made. The tampons and bandages were allowed to remain two days before removal. Good results followed in all cases.

Rostowzew and Alexandrow reported thirteen cases treated by tamponing the uterus. In a part of the cases the result was satisfactory. In others great pain was produced, and the insertion of the hand within the uterus was considered a safer and more efficient expedient.—*Am. Jour. Med. Sci.*

PUBLISHERS' NOTICES.

Medical Books.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

Taylor's Atlas of Venereal and Skin Diseases 1-2 Mor. Published by Lea Bros. & Co. 1889. List price, $28.00.

Cyclopædia of Obstetrics and Gynæcology, 12 Volumes (Complete), Cloth binding. Published by Wm. Wood & Co. 1889. List price, $25.00.

Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Trousseaus' Clinical Medicine in Two Volumes. Published by P. Blakiston, Son & Co. 1882. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather binding. Published by Birmingham & Co. 1882. List price, $5.00.

Harley, Disease of the Liver, Leather binding. Published by P. Blakiston, Son & Co. 1883. List price, $4.00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

J. H. Chambers & Co.,
914 Locust Street, St. Louis, Mo.

W. R. Warner & Co. are evidently determined to keep in the van of therapeutic remedies. "Antalgic Saline" appeals to us to-day for recognition as a remedy for the relief of "headache," also for influenza and neuralgia, and as an antidote of "la grippe" they issue the "Pil Chalybeate Compound:

℞ Composition carb. protoxide of iron, - grs., 2½.
Ext. nuc. vom., - - - gr., ⅛.

Sig.: One pill every four hours and increase to 2 pills three times a day.

Antalgic Saline, one desertspoonful every four or five hours till relieved for headache. The same mode of administration precedes that of the chalybeate pills for "la grippe."

Koch Lymph.—A consignment of Koch's Lymph, which had been forwarded from Berlin on February 6, and apparently mislaid in the N. Y. Custom House for a week or two after arrival, was finally delivered to Messrs Lehn & Fink, Wholesale Druggists, 128 William St., New York, on Saturday afternoon, February 28. This firm has spent several hundred dollars in cablegrams during the period since the first announcement of the Lymph discovery to date, with the result that they have now secured 60 vials of 5 grammes each. A 5 grame vial is diluted to a 1-10 of 1% solution and furnishes 5000 injections. The vials are sealed, containing the reddish brown liquid, which foams on shaking, and each vial is accompanied by explicit directions and caution over the printed signature of Dr. Libbertz. It is assumed that this consignment is the first imported into this country for commercial purposes. Messrs Lehn & Fink sell the lymph only in the original 5 grammes vials, preferring thus to guard originality to the physician.

Safeguards Against Substitution.—Fellows' Hypophosphites is dispensed in bottles containing 15 oz. by measure—the address Fellows & Co., St. John, N. B., blown on—the name, J. I. Fellows, St. John, N. B., in watermark upon the yellow wrapper; it is hermetically corked, and sealed with crimson capping; is heavy, slightly alkaline, has a pleasantly bitter taste, and deposits a flocculent brown precipitate of Hypophosphite of Manganese when left undisturbed for forty-eight hours.

Note.—Though this precipitate mars the appearance, its presence has been found imperative to its full remedial effect.

ORIGINAL COMMUNICATIONS.

AN ADDRESS.

DELIVERED MARCH 18, 1891, TO THE GRADUATING CLASS OF BEAUMONT HOSPITAL MEDICAL COLLEGE ON BEHALF OF THE FACULTY.

BY SPENCER GRAVES, M.D., ST. LOUIS.

Professor of Minor and Operative Surgery.

The exercises this evening will close a session in every way the most successful in the history of Beaumont College.

I find the best expression of my feelings in congratulations; congratulation for our friends and the faculty on the success of the past, the present, and what we believe to be the fair prospects for the future of this institution.

But my especial words of congratulation are for you, young men, who take your degree of M.D. this evening.

You begin your career in an age of unequaled progress and improvement in the mechanical arts, in the sciences, and, one might say, in every department of learning.

The rate of progress is becoming more and more rapid every day. What is accomplished one year serves to help accomplish twice as much the next. In all civilized countries intelligent investigators are working in every department of learning, ambitious to acquire something that may bring them fame, or be of benefit to their fellow man.

And while so much is being done in every department the medical profession has kept pace with the age. Though its achievements have not been so much noticed on examination they will be found no less remarkable. Let us congratulate ourselves that ours is a profession whose discoveries from the beginning of civilization have been given freely to the world for the benefit of humanity.

No true physician seeks to monopolize his discoveries by taking letter patents thereon, it matters not how much valuable time or how much labor they may have cost him.

Vaccination, ether, chloroform, all of the new or improved operations in surgery, and, I might say, all the valuable remedies that have done and are doing so much for the prevention and cure of disease, have been given to the world *free*, with no attempt on the part of their discoverers to make money out of their sale; while in other employments large fortunes are awarded to successful inventors. Such opportunity for gain the medical profession denies itself for considerations of the highest good to mankind.

And, now, how does the work of medical men compare with that of workers in other departments? What has the medical profession accomplised?

The best authorities say that the average of human life in the seventeenth century was only 13 years; in the eighteenth century 20 years; in this, the ninthteenth century, it is in highly civilized countries 36 years, and is still increasing; while in less civilized countries where there are few or no well informed scientific physicians to teach people how to avoid and how to cure disease, the death rate is still about the old standard.

Can we offer better proof of what the medical profession has done and is doing for the world's benefit?

It is true that much of this has been accomplished by teaching men to live according to the laws of hygiene, and to avoid and prevent diseases, as well as by the actual care of them ; but it is none the less valuable on that account.

The great law of the survival of the fittest may be set aside, rather is set aside, and many delicate children who would perish in or by life under the old ways of living are now sustained to maturity, and becoming parents, in turn give to society a progeny more delicate than themselves. Whether this is for the better is not now open to argument.

This class of nervous, weakly men and women are here, and they are likely to become more and more numerous. Many of them are interesting members of society and contribute their full share to the sum of human happiness; but, being delicate, they must live more carefully and have superior medical attention to enable them to enjoy even fair health.

In highly civilized countries not only do the better knowledge of the laws of health and better medical advice cause many delicate children to be brought to maturity, thereby increasing the demand for doctors; but excitement, hurry and restlessness put a much greater strain on nervous systems of the strong as well, than any had to bear under the hum-drum, quiet life which most men lived before the days of daily papers, steam and electricity.

Nothing taxes the vital powers like the spirit of unrest which is all over the civilized world, and is especially prevalent in our western country; few, indeed, are quiet and contented with the life they have; ambition invades almost every household and spares neither rich nor poor, old nor young; all join in an excited, mad race to better their condition. All this tells on the health and makes the work of keeping men and women in good health much more difficult; their nervous systems become overworked, their digestion is disturbed, they can make *no* stop to rest and recruit, they stimulate, palliate and go ahead. And all this, as the hardy pioneers, and the doctors who did pioneer work, die out, will make more and better medical men necessary.

In order that all these more or less delicate, nervous people may have their complicated human machines kept in good working order, so that they can enjoy the

good things of life and do in comfort their share of life's work, there must be more doctors of higher medical education.

There is no danger of educating too many, if they are skilled, able men, well qualified to command the confidence and respect of the public.

The demand must be a growing one. Not only is one generation of men and women to be taught how to live and how to bring up their children, and train them to such habits as will preserve their health, but each successive generation must be better taught. And as the people are better educated and more intelligent, they will be more competent to judge of good medical skill; and must come to respect and honor the better men.

And so there is no fear but that your work and our work, if faithfully done, will meet with its due reward.

A medical education must mean a good deal more in the future than in the past. Every new discovery in the departments of surgery, physiology, pathology and therapeutics adds to the great mass of knowledge, for every medical student to master.

Only a small part of the knowledge necessary can be acquired in the three years' of a student's life. Every man who expects to do his duty and keep himself qualified for his profession must study and learn every day.

We hope, as time goes on, to send out all over the country a little army of doctors, with something of the earnest, conscientious spirit of Cromwell's old soldiers. Men with fixed, earnest purposes to battle with disease, as those old soldiers did with their enemies; men whose first aim will be to teach people how to live so that they may keep well, and will cure disease when it comes. There can be no nobler aim.

In this day of humanitarianism, when all the world is asking what can be done for the helpless and needy, such men will be in the current of progress. No man can do more good.

He who helps his fellow being to be well, not only relieves him from suffering, but fits him for his life-work, and gives him power to enjoy every other blessing.

You will remember that when the Hebrew prophet fleeing from Jezebel, took refuge in the wilderness, and lay exhausted under the Juniper tree, an angel of the Lord came and supplied him with food and drink. The first ministration was to the body, preparatory to the great work whereunto he had been called. In order that a man may accomplish the highest aims of his life, he must see that the wants of the body are supplied, and if he realizes the best results of his mental powers, there must be a sound mind in a sound body.

I wish on behalf of the faculty to say a few words of admonition and encouragement to the graduating class.

Another chapter of your lives begins to day. You will now select your location and ask the public to trust their lives and health to your skill. Doing this, you will be bound in honor and conscience to be earnest and faithful in the discharge of your duties. Though you take your diplomas this evening, remember that you have but laid the foundation of your medical education. You ought to be medical students as long as you live, learning something every day about the prevention and cure of disease.

A medical education means more than it did a score of years ago, so much has been accomplished in that time. You cannot hope in a life time to master all that is necessary in your special field of work.

While you are waiting for patients, you will likely have much leisure. Take up the most common disease and study it; first reading all you have in your notes and your different books about that disease till you fully understand its diagnosis and treatment. Then you take up another and another, and thus prepare for what you are likely to meet first. Then, as unusual cases come under your observation, take up your books and investigate; and in this way every one of you can do good professional work that will be a pleasure to you and bring you both honor and profit.

The day of pioneer doctors who brought no more books and quit studying as soon as they graduated is passing away. Such men have already done too much to lower the standard of the profession, and lose the confidence and respect of the public. It is for you and other young men of this generation to win back the honor and respect by deserving it.

You cannot afford to stand still; progress and improvements are abroad in the land all about you; you, too, must move forward, keep step with the times, or you will be left stranded by the way. Do not be afraid that good work will not be understood and appreciated; education and intelligence are rapidly extending to every part of the country. Wealth is also accumulating all over this favored land. Soon there will hardly be any community but what will have intelligence to appreciate and money to pay for good professional service.

The doctor who does not read and study to improve himself will not be needed much longer. While he who does so, and makes himself more and more skillful, who lets the world see that his whole mind is given to his profession, will be more and more honored and appreciated and better and better paid. It is true that the practice of medicine is attended with difficulties, hardships and disappointments; but, on the other hand, no professional man is more appreciated, loved and honored than a physician. His social standing is with the best. His chances for usefulness are practically unlimited. The members of no other calling or profession have a better opportunity of doing good work and helping those who cannot help themselves.

Every one of you will have a chance to act the good Samaritan, and I hope no graduate of Beaumont will ever "pass by on other side" when suffering and sickness are in sight. It is better to work for nothing than to be idle.

Hereafter you will not have before you the goal you reach to-night and the immediate influence of your

teachers to stimulate you in your work. Love for your profession, desire for fame and fortune, desire to relieve suffering humanity, must prompt you to continue with your studies and investigations. Wherever you go your success will redound to the credit of your *Alma Mater*. As representatives of Beaumont College you will locate in widely distant communities, and we will be judged by the work you do.

Need I say that our heartiest sympathies and best wishes will go with you wherever you may be, and that we will be glad and proud to hear of your success?

Allow us to hope that you will cherish the most kind remembrance of each other and of us. That you will cultivate professional pride and courtesy, and be refined gentlemen, as well as skilled physicians.

Remember that the greater difficulties you overcome, the greater will be the pleasure of your success.

LARGE HEPATIC ABSCESS—FOUR CAVITIES.

BY C. I. PEASE, M.D., CARTERVILLE, ILL.

December 8, I was called to see A. C., æt. 60, who was suffering pain in the right hypochondrium, extending thence into the shoulder of the same side. The patient speaks of having experienced a sense of weight and fulness in the side ever since. When a boy, he fell from a house roof, striking upon a chair. He says that occasionally, when he takes cold, the symptoms are aggravated, that this side enlarges, and he has pain similar to that which he feels now. That after he takes something, to act on his liver, the pain and enlargement diminish, but that this side has always been larger than the other since he received the fall. On the morning of the day I saw him, he had gone to work, but early in the day was seized with the pain described above, which increased in intensity during the day. When I saw him at 10:30 P.M., he was suffering intensely. There was scarcely appreciable yellowing of the integument and cornea. Respiration slightly accelerated, temperature, 99.5°, pulse 96. Bowels constipated, urine scanty. There was immense enlargement of the liver; dulness extending from the nipple above to the level of the umbilicus below. I was not able to detect fluctuation; the lower part of abdomen was tympanitic. I administered hypodermiccally morphine and atropine, and ordered saline laxatives, and an enema of soap and water. I also directed that turpentine stupes be applied to the abdomen.

December 9. Symptoms much the same, except that pain is less severe, and the constipation partially relieved. I repeated the injection of soap and water, adding turpentine in the proportion of a teaspoonful to the pint. His bowels moved freely, with great relief to patient, and abatement of tympanites.

December 10. I found the patient suffering intensely. Examination revealed a circumscribed protrusion in the right mammillary line, about two and one-half inches below the costal cartilages, which yielded quite distinct fluctuations. I introduced the needle of a hypodermic syringe at this point, which readily filled with a thin liquid, of a dark, reddish-brown color, which, under the microscope, exhibited crystals of cholesterine, disintegrating blood-corpuscles, and granular masses of detritus; but no genuine pus-cells could be found. The patient was put upon general tonic treatment.

December 12. The tumor has increased in size; general condition much as from the first, except that the bowels move more regularly, and the appetite is better. Hypodermic needle was used as before; no adhesions.

December 14. Dr. Farrell was called in consultation. At his suggestion the needle was introduced repeatedly in the same region, in order, if possible, to induce adhesions, preparatory to operation. The tumor had extended downward, to a level with the anterior superior spine of the ilium, and to the left, several inches beyond the umbilicus; fluctuation appreciable over this entire surface.

December 15. Still no adhesions, but the condition of the patient required that something be done without delay. Pulse, 100; temperature 100°, respiration, hurried, with occasional fits of dyspnœa.

Two pints of fluid, identical with that previously examined, were removed by aspiration. The patient expressed great relief from the operation. Pulse dropped to 86 in a few minutes. The patient remained comparatively comfortable from this time until December 18, when the symptoms returned to near what they were previous to the operation, and increased in intensity until December 21, when the temperature was 101°, pulse, 120; respiration, 30. We aspirated from the same place about two pints of fluid, when it was observed that there was a second sack, lower down, which was not drained by the operation. Accordingly, a needle was introduced, at a point about four inches to the right of, and two inches below the umbilicus; and about the same quantity of fluid was drawn. As before, the patient expressed himself much relieved by the operation. Pulse, temperature and respiration returned to nearly a normal state, and so remained for three or four days, when the same pressure symptoms began to return, and operation was deemed again necessary on December 30. After withdrawing all the fluid possible from the two points previously aspirated, fluctuation was still detected directly to the right of the umbilicus.

The needle was, accordingly, introduced two inches from the umbilicus, accompanied by the removal of a considerable amount of fluid, perfectly similar to that from the other cavities. The dyspnœa was not so promptly relieved as before, and as there was fulness, and dulness on percussion in the intercostal spaces, up to the nipple, it was suspected that another undrained cavity existed beneath the ribs. Accordingly, the needle of a hypodermic syringe was introduced between the cartilages of the eighth and ninth ribs. The syringe filled readily with a fluid of the same appearance as that

formed in the other cavities. The aspirator was used here, also, with considerable success. The total amount of fluid removed this day measured one gallon, lacking two ounces, and it is probable that amount was spilled during the operation, and measuring.

On January 7, we aspirated from the same four points, five pints of fluid. That from three of the cavities, all save the one beneath the ribs, was changed in character, being almost entirely serous, excepting that, last drawn from each cavity, which presented the appearance of ordinary pus. In the one cavity the fluid remained much the same as before. The patient experienced great exhaustion for some hours following this tapping. His strength was by this time failing fast; could only be moved in bed with great care, and much pain to him.

On January 18, we again removed four pints of fluid —this time of a sero-purulent type, without fetor, from all four cavities.

On January 20, I was called to see the patient, and found him suffering intense abdominal pain, of a lancinating character; respiration hurried; pulse, 120; temperature, 99°. Bowels were constipated, and the patient unable to empty the distended bladder. Abdomen enormously distended and tympanitic, and extremely sensitive to pressure. I introduced a catheter, removing two pints of urine, moved the bowels by laxative enema. At this time there was heard frequent gurgling in the bowels, and patient spoke of feeling, what he described as something trickling down inside of his body. From this date the patient sank rapidly, until his death, which occurred on January 26. During this time no fluctuation could be detected where the abscess previously existed; tympanites extending over the entire abdomen, above the bladder, which it was necessary to relieve by use of the catheter daily. A post-mortem was not allowed.

Now, in regard to the etiology of this case, the query presents itself to my mind: Did a chronic inflammation date from the injury, fifty years previous, which, as the powers of the system were impaired by age, assumed a suppurative character? Or, were there at that time developed abnormal adhesions, which, by traction, or otherwise, predisposed the organ to disease? Other hypotheses might claim consideration, but none, so far as I am concerned, capable of demonstration. I am convinced now that the few days' delay, after the presence of fluid accumulation was determined, was bad practice, even though no adhesions were formed. Death in this case evidently was the result of peritonitis, following escape of fluid into the abdominal cavity, either at the point of aspiration, or by rupture of an exceedingly thin abscess wall.

An impartial consideration of the elements of this case, in the light of the present advanced state of abdominal surgery, seems to us to have demanded an early laparotomy.—Ed.

TRANSLATION.

TOBACCO AND THE DEPOPULATION OF FRANCE.

TRANSLATED FOR THE REVIEW BY WM. DICKINSON, M. D.

A Communication to the Society of Dosimetric Medicine, Paris, by M. Decroix, Pres., November 5, 1890.

Gentlemen: Since June 24, 1890, the Academy of Medicine has been engaged in the investigation of the subject, appropriately designated, "the depopulation of France," but which it is more correct to say, the very small increase of her population. The importance of the question, which, perhaps, is exaggerated a little, has induced me to believe that it is not inappropriate that it should engage the attention of our Society. It would seem that after the arguments arrayed by so distinguished practitioners as Messrs. Lagneau, LeFort, Javal, Rochard, etc., there was nothing more to be added, respecting the causes of depopulation and the means of arresting it; so, the diminution in the number of marriages, the voluntary limitation in number of children, syphilis, celibacy of priests, the right of primogeniture, abortions, alcoholism, etc., have been cited to account for this decadence.

To my mind, one of the chief causes has escaped our academicians, and that is the use of tobacco. So the society against the abuse of tobacco has deemed it its duty to call the attention of those savants to the influence of this narcotic.

Observe in what words the arguments have been adduced, before that wise assembly, as the support of its declaration:

1. Dr. Brochard, editor-in-chief of the journal, *Young Mother*, has expressed himself upon the subject before us thus. "I am convinced that, in some families, the excessive use of tobacco is the true cause of the small number of children, as has been noticed. The ill-omened influence of tobacco is equally perceptible in the life and constitution of the newly-born."

2. Dr. A. Bertheraud, the chief old physician of the army, declares, after his long experience, that "the influence of the abuse of tobacco is not alone visited upon the father and the mother, whose power of procreation is enfeebled, and upon the nurse, whose milk is vitiated thereby; it also sensibly affects the young child of the smoker, compelled to breathe, under the paternal roof, the air, impregnated with the emanations from the pipe and the cigars.

3. Dr. Goyard has come to the same conclusion in a remarkable work, entitled, "Influence of Tobacco upon the Development of the Organs and Functions." Upon the general system the injury is profound; in some young persons the general functional powers are sometimes abolished before that even the osseous system has attained its principal developments—it is tobacco that is culpable for this real failure.

4. The Society Against the Abuse of Tobacco, at its meeting in 1878, proposed the following question to investigate, relying alone upon facts well sustained: Whether the excessive use of tobacco really exercised an injurious influence, first, upon the virule power of smokers for procreation; second, upon the constitution and health of their children. The testimonials received have all responded affirmatively.

5. In a report to the Minister of the Interior, read before the Academy of Medicine, at its session, May 24, 1881, the reporter, Dr. Lagneau, expressed himself thus, viz.: Messrs. Segalas, Behier, Martin-Damourette, Cordier, G. Delaunay, Jacquemart and Bodros have observed some cases of remarkable sexual frigidity in smokers, who did not regain their virility even after abstaining from the use of tobacco.

Immediately upon the presentation to the Academy of Medicine the work of the Society Against the Abuse of Tobacco by Dr. Dujardin-Beaumetz, Dr. Brouardel uttered this exclamation, "And German!"

The question is sufficiently serious that we should regard it seriously—yes, "and German!" At the time I organized the Society Against the Abuse of Tobacco, that objection was hurled at me, and has since been often repeated. So, in 1882, I went to study the German smoking habit upon the spot, and there this is what I observed: There is not to be found among our neighbors a report like that which, in France, the minister of finance has published; but I was able to obtain several documents, which showed that the quantity of tobacco consumed in Germany in 1881, divided by the number of inhabitants, gave an average of 1700 grammes; while in France the average was only 924 grammes.

According to the data received, since the Germans consume nearly twice as much tobacco as the French, this would appear, *a priori*, to furnish proof to M. Brouardel. Notwithstanding, in my opinion, he is in a profound error. I will explain myself.

If they smoke twice as much as we, our neighbors ought to have two times as many smokers affected with chancres, with gastritis, amblyopia, dyspepsia, loss of memory, and other narcotic affections. Very well. The facts are just the contrary. Those persons whom I have consulted on this subject, and in particular the physician-in-chief of the Hospital of Wiesbaden, appeared greatly amazed by my questions, and declared that he knew of but a very few diseases that were caused by tobacco.

Without holding to the letter of these declarations, I believe I am authorized to formulate this assertion: "The Germans smoke much more than the French, but become much less poisoned by it." And how is this? These are my reasons. The German government has not the monopoly of the tobaccos; it is not at all an article of taxation. The culture, manufacture and sale of the tobaccos are free. It thence results, very properly, that the grower harvests not only seven or eight of the large central leaves to each stalk of tobacco, as is the practice in France, but also the small leaves of the stalk and of the extremities of the stem, as also those of the second growth, which do not contain nicotine.

But that is not all. The manufacturers, or at least some of them, fradulently add to their products the leaves of trees, of the beet, cabbage, etc. To cite another reason: in France they smoke much more of the cigar and cigarette than in Germany, where, also, the pipe has a long stem, or a bowl, retaining a large portion of the nicotine. Lastly, we add, that our neighbors drink a large quantity of beer which acts, to speak of economy, as a kind of depurative; that tobacco in cold climates is less injurious than in warm; that nervo-sanguine temperaments of the South are influenced to a greater degree than the lymphatic temperaments of the North.

Let me here express a regret. The number of smokers in each country of Europe has been absolutely ignored. The statements that such a people smoke more or less than such another people, they base upon these data—by dividing the quantity of tobacco consumed in the country by the entire number of the population, they obtain a quotient more or less increased. But to be more exact, it is necessary to take account of the smokers, to the exclusion of non-smokers. For example. In 1888 (the last official statistics), the average quantity of tobacco consumed in France was 960 grammes. While, in reality, if the number of children, women, adult non smokers, also those who smoke only occasionally, be excluded, the average for each smoker would be 3840 grammes, the real smokers not constituting even one-fourth of the entire population.

So far as Germany is conceaned, from the point of view as given, the proportion of smokers estimated, perchance, approximately at one third of the population, it would bring the quantity of tobacoo consumed by each smoker to 5,108 grammes, and not to 768 grammes; that is to say, to double the quantity that is actually consumed by the French smoker. These are the principal reasons which demonstrate that tobacco is much less productive of ill with our neighbors than with us, and for confirming the statement that in France tobacco is one of the causes of its depopulation.

As it happens throughout the world, that there are persons whose prejudices interfere with their judgment, still, I think they should give a proof of that which I advance. I obtain the elements of this proof, first, in the calculation in respect to material and money, engaged in prosecuting the monopoly of tobacco, for the year 1888, in so far as it involves the consumption of tobacco. Second, in the report to the Minister of Commerce on industry, and of the colonies (upon the fluctuation of the population of France in 1889), by M. Vannacque, and published in the *Official Journal*, Oct. 15, 1890. These two documents contain a mass of figures relating to the subject under consideration. But I wish to cite only that which is requisite to establish the table below, divided into two sections—the first embracing those ten provinces, where the greatest amount is smoked. I shall make use of only the result of the 17

columns, which include the statistics annexed to the report of Vannacque, on the fluctuation of population; but I fear that opinion in respect to details, will be misleading, and that attention will not be sufficiently directed to the essential point of my inquiries. Therefore I will employ the two columns—excess of births and excess of deaths, in their bearing upon the consumption of tobacco.

Of which the summary is: Of 10,000 inhabitants in provinces where the largest quantity of tobacco is smoked, the ratio of births to deaths is 38.40 to 2.55, and where the least quantity is smoked, 43.33 to 1.81.

It should be observed that:

1. In the ten provinces where smoking was most practised, there was presented an excess of deaths, while there was only one in the ten where there was the least amount of smoking.

2. That the everage amount of tobacco consumed by each inhabitant was 1377 grammes in the former provinces, and only 321 in the latter.

2. That in the ten most nicotinized, the excess of the births in 10,000 inhabitants was 38, while in the others it was 43.

4. That the increase of deaths, on the contrary, is 2.55 in the provinces having the largest number of smokers, against 1.81 for those of smallest number.

But how does it happen that the provinces of the North, for example, which is the most nicotinized, has an excess of births nearly 9 in 1000 inhabitants. This excess, perhaps accidental, ought not to be attributed to the increase of population in consequence of immigration, according to the statements of M. Vannacque. It is because I have guarded against the exceptions that I have compared, not one or two provinces, but ten provinces with ten other provinces.

To recapitulate. Medical observation, physiological experience and statistical researches perfectly conspire to demonstrate that the use of tobacco is one of the causes of the depopulation of France. From whence, from this point of view, I conclude that it is greatly to be desired, at least, that a law ought to be enacted, prohibiting minors, under 16 years of age, from the use of tobacco on the street or in public institutions—a law similar to that in force in the republic of the United States, since Sept. 1, 1890. If minors do not contract the habit of smoking, there will be a less number of adults who will abuse the use of tobacco.

Postscript. By right of the title annexed to my work, I may be permitted to testify to my astonishment that gentlemen in the Academy of Medicine have not urged one of the principal means of opposing two of the causes of depopulation, viz: First, syphilis; second, voluntary limit to the number of children. As far as human laws are impotent to combat these two causes, so far religious laws are effectual. In fact, the three dominant religions in France, Judaism, Catholicism and Protestantism, are in accord in expressly insisting upon chastity upon young men and the unmarried; of the avoidance of liability of contracting syphilis. These religions not less formally prohibit the voluntary limitation to the number of children. With the view, therefore, of arresting the process of depopulation, the Government should, then, promote religious instruction.

As regards a tax upon the unmarried, I have endeavored, for six or seven years, by means of petitions to the Chamber of Deputies, less to constrain men to marry than that they should aid in bringing up the children of fathers unknown.

ABSTRACT.

PATHOLOGY.

THE PATHOLOGICAL CONDITION OF DRUNKARDS.

In the *Western Medical and Surgical Reporter* of January, 1891, Dr. S. F. Carpenter has ably and succinctly portrayed pathological conditions determined by the continued use of alcoholic liquors, especially whiskey, and says:

No man can use whiskey excessively for an indefinite period without serious pathological changes in one or more organs of the body; and when we contemplate these pathological conditions, we need not wonder at the many sudden and unexpected deaths among the inebriates.

Out of a large number of subjects dissected in the Northwestern Medical College during the last ten years nineteen of them were confirmed drunkards when living, and their deaths were due to diseases and organic changes, as the direct result of the long and excessive use of whiskey.

The first subject dissected ten years ago was that of a man who had used whiskey to a state of almost constant intoxication; lingering three or four months before death with progressive hemiplegia. During the dissection it was found that he had died from softening of the brain. The grey matter was normal to a partial extent only, while the white matter—particularly of right hemisphere—was softened and disorganized. The softening involved, to some extent, the pons and medulla. The sub-arachnoidean spaces at the base of brain were filled with a superabandance of serum. The fourth ventricle as well as the two lateral ventricles were also overflowing with serum. The writer is satisfied that the pathological condition and death were the result of the excessive use of whiskey.

The following winter two subjects were dissected who had died from the effects of strong drink. One was found to have suffered with chronic pneumonia, involving the lower half of each lung. The heart was enlarged, heavy and fatty. The other had suffered from an attack of pleurisy, or pleuro-pneumonia, for there were extensive adhesions between the pulmonary and costal pleura of both sides. On one side the adhesion seemed to be more recent than on the other, showing

that he had suffered with pleurisy at different times.

In the winter of 1884 the body of a drunkard was dissected who was the victim of tubercular meningitis, with adhesions of the membrane of the brain.

But gastritis and gastro-enteritis were the prevailing affections of a large majority of the nineteen subjects spoken of. Twelve out of the nineteen suffered with either inflammation of the stomach, or bowels, or both. Five out of the twelve suffered with inflammation of the stomach alone, and that to a supprising extent. In two or three of these cases the mucous membrane of the stomach was black and thickened, and in places ulceration had taken place. Of the other seven, three had suffered with both gastritis and enteritis, while the remaining four had suffered with extensive inflammation of some part of the intestinal canal; a majority of them suffered with colitis. A remarkable feature in these twelve gastro intestinal cases was that every one had, at some period of their lives, suffered with pleurisy, or pleuro-pneumonia, for pleural adhesions existed in every case. But three weeks ago a subject who had died from the long and excessive use of whiskey was dissected, and the ascending and transverse colon was almost destroyed by inflammation and ulceration. Adhesion of the left pleura existed to a great extent.

One of the most intesesting of all was one with hob nail of the the liver. Three years ago we dissected a subject, who had been an excessive drinker for fifteen years before death, and in his case found the most perfect specimen of hobnail of liver ever seen in the pathological field.

The other two were cases of hypertrophy of the heart. In one the heart was greatly enlarged, the cavities diminished in capacity, and a fibrinous clot attached to the chordæ tendinæ of the mitral valve, and almost filling the left ventricle. The subject evidently died from the condition of the heart, and particularly from the effects of the clot.

The last of the nineteen cases was also a case of hypertrophy of the heart, with a fibrinous clot in left ventricle and aorta. The case was that of a prominent business man of this city, who had been a strong drinker for many years, and was found in a dying condition in his yard at midnight. An inquest was held, and the writer made autopsy for the coroner. The heart was enlarged to twice its natural size, and covered with a heavy deposit of fat. The hypertrophy was both excentric and concentric. The valves (tricuspid and mitral) with tendinous cords were thick and hard, and a fibrinous clot, fourteen inches in length, extended from the left ventricle into and through almost the entire length of the thoracic aorta. Of course, he died from cardiac failure, not only due to the enlarged and fatty heart, but to the presence of one of the largest and longest fibrinous clots ever known. The writer does not say that these subjects all died from the effects of whiskey, but he believes that the pathological conditions of all of them were the direct result of the protracted use of whiskey, and that geneaally of an impure and poisonous quality. We know that strong whiskey used for a long time will literally burn up the stomach and bowels, for it is impossible for so delicate a structure as a mucous membrane to stand its ravages. Many drunkards are constantly exposed to the inclemencies of the weather, hence the many cases of pleurisy and pleuro-pneumonia. Enlargement of the heart is due to the excitement and increased action under which it labors as a result of over-stimulation. The brain is kept in a state of congestion so much and so long, that it becomes disorganized, and we have softening in one case, and apoplexy or hæmorrhage in another.

Every organ in the body can be made to suffer from the prolonged and the excessive use of whiskey. The writer has known many cases of Bright's disease to result from its use, and acute nephritis, hepatitis, gastritis, enteritis, pneumonia and inflammation of the brain are very often the direct result of the excessive use of this deadly agent.

CHINESE MEDICINE.

Abstracted for the REVIEW, from the "Medical Tribune."

Mrs. H. T. Gunn, in the *Medical Tribune*, has contributed an interesting article, on Chinese medicine of to-day. The source of the information is not indicated; but whether from literature translated or from personal observation, its value is the same. We excerpt and abstract as follows, viz.:

Medical works in Chinese are numerous, but few have been translated. They record the medicine of the past, which in modern times has received but little accession; a bigoted respect for the old restrains stimulus to progress, it being deemed sufficient "to conserve and transmit, rather than to investigate and originate." "Dissections are interdicted by law and discountenanced by public opinion; the people having the idea that a mutilated body will enter the world to come in a dismembered state and remain so forever after. Consequently they have a very vague ideae concerning the internal organs, their relative positions or their functions." In consequence of their ignorance of anatomy, the Chinese doctors have no proper idea of surgery and seldom attempt it. In their efforts to reduce fractures and dislocations, they present a strange mixture of folly and sense in the procedure.

An English traveler fell from his horse and dislocated one of his ribs. The doctor who was called caused the patient to be stripped to the waist, ond then, supported by two men, made to walk in the open air. While walking, he had unexpectedly a basin of freezing cold water thrown on his chest, which caused him to draw in his breath with great vehemence. Under this infliction he was told by the doctor that the sudden deep inspiration would restore the rib to its natural position. This method failing, the next operation was to cause the patient to sit on the ground, and then, by the assis-

tance of two men, the doctor held a cloth over his mouth and nostrils till he was almost suffocated. This, said the Chinese Æsculapius, by causing a violent heaving of the chest will be sure to force in place the dislocated rib, and it did. The gentleman had also received a scalp wound, and that was healed by being stuffed with burnt cotton.

They make the *yin* and the *yang*, those universal solvents of Chinese philosophy, account for everything they cannot understand. The *yin* they claim is the male, and the *yang* the female principle in nature, and when they are in perfect harmony in the body, health is the result, and disease is supposed to be owing to a disagreement of these two elements.

The pulse is very carefully studied and its condition regarded as the index of every condition of the body. Great parade is usually made by the practitioner in examining it; a combination of solemn nonsense and unfathomable wisdom, that we barbarians delight to emulate. He attributes to the pulse an endless variety of nice peculiarities and subtle indications, which he has reduced to a classification termed inch, bar and cubit, the first being nearest the hand, and the bar and cubit further up the arm, following the course of radial artery. There is supposed to be a sympathy between these different points of the pulse and the internal organs which serves to indicate the nature of the disease, and consequently the state of the pulse is principally depended upon in diagnoais. Discrimination is made also as to which side of the body the pulse is taken, and upon the amount of pressure in determining it. For instance, when the left hand "inch" is lightly pressed, it indicates the state of the small intestine; when heavily pressed, the state of the heart. When the "bar" is lightly pressed, the state of the gall-bladder is indicated; when heavily pressed the liver responds. The "cubit" lightly pressed sounds the state of the urinary bladder, and heavily pressed tells the condition of the kidneys. The right wrist when examined in the same manner indicates the condition of the large intestines, lungs, stomach, spleen, and two imaginary organs, which they call the *san tseaon*, or "three passages," and the *ming man*, meaning the "gate of life." Sometimes the doctor finds it necessary to feel all these pulses at once, the process resembling very much the fingering of a typewriter.

There is a Chinese theory that every organ of the body is allied to one of what they term the five elements—earth, wood, metal, fire and water. The heart, they say, being allied to the element fire, all derangements of the heart must proceed from excess of the principles of heat and dryness. The bowels being allied to the element earth, becomes deranged through an excess of wind, and so on.

Out of the 442 medicinal agents enumerated in one of their popular dispensatories, 314 are vegetable, 50 mineral, and 78 animal. These medicines are ranged under six heads—tonics, astringents, resolvents, purgatives and alteratives of poisonous humors in the blood. Chinese medical men prefer to extract the active principles of drugs by careful and repeated boilings, for which they employ baked clay vessels.

Wild honey is used largely as a household remedy for its pectoral, laxative and emollient properties. It is used as a salve for chapped hands and roughness of the skin, and is also applied to certain inflammatory conditions of the eye, and as a vehicle for unpleasant drugs in making up pills. Oil of sandal-wood is used in gonorrhœal affections. Genitan, or "dragon's gall-plant," as the Chinese call it, and many other agents with the bitter principle, they set down as eminently anti-phlogistic and anti rheumatic. Ginseng is a very old and popular remedy with them, and is used as a tonic, especially where there is a loss of vitality. The flowers of hyosciamus niger, in combination with aconite root, they use topically when they wish to benumb the tissues for opening boils or abscesses. Xanthoxylum they use for indigestion and dysentery.

As a rule, the Chinese doctors employ few mineral or metallic substances in the treatment of internal diseases. The poisonous effect of lead are well understood by them. They use it in making liniments, ointments and plasters. Sulphate of copper is in general use; it is applied as a powder to buboes, bad eyes, sores, and the bite of a mad dog. They also use as an emetic in cases of opium poisoning.

It would be strange, indeed, if among the 11,896 formulæ to be found in one of their ancient books on medicine, there was not much that is absurd, ignorant and superstitious. As for medical mountebanks and charlatans in China, their name is legion, and so far is our own profession honeycombed with them, but so long as they are dubbed "regular" they live and thrive.

The obstetrical branch of practice is almost entirely in the hands of women in China.

Acupuncture was invented in China, no man knows how many centuries ago, and is still largely practiced with some good results, among many bad ones. They puncture for syncope for deep-seated pains, for swelling of the joints, for sprains, for dry cough, and many other ailments. Indeed they often treat the human corpus like a large animated pin-cushion, and puncture it indiscriminately. The custom of applying caustics and cauteries of various degrees of power is very general and often entails great suffering. Leeching and cupping is employed to remove blood in some inflammatory conditions, but venesection is discountenanced, especially in fevers; for, says the Chinese leech, a fever is like a pot boiling, and it is requisite to reduce the fire, and not diminish the liquid in the vessel, if we wish to cure the patient.

The practice of inoculation or *planting* for small-pox as they termed it, was handed down to them from the time of the Sung dynasty 1,014 years before Christ.

The *modus operandi* is to impregnate a piece of cotton-wood with the variolous lymph and introduce it into the nostrils. The procession of the morbific influences is marshalled in the following order: "The nose

is the external orifice of the lungs; when the lymph is placed in the nose its influence is first communicated to the lungs, which govern the hair and skin; the lungs transfer the poison to the heart; the heart governs the pulse, and transfers the poison to the spleen; the spleen the liver; the liver governs the tendons, and transfers the poison to the kidneys; the kindeys govern the bones; the poison of the small-pox lies hid originally in the marrow of the bones; but when it receives the impression from the inoculation it manifests itself and breaks out internally."

I cannot leave the list of Chinese remedies without noticing the celebrated *red pills* of which we have all heard. Their composition is a secret in the possession of a single family and is transmitted from generation to generation, and jealously guarded. In Peking they have a prodigious celebrity and are unanimously extolled as a universal panacea for all the ills a Chinaman is heir to. They are homœopathic in size, and the dose is from two to two dozen according to the gravity of the case. They are perhaps the most active sudorific known to the medical world; but the *modus operandi* is still more remarkable. A single pill is powdered and applied to the nose like snuff, which provokes such a succession of sneezes, that the whole body protests, and breaks out into a profuse perspiration. They depend, too, upon this wonderfull pill in prognosis. If a pinch does not make a sick man sneeze his case is hopeless; if he sneezes but once he will live out one day. Hope revives and grows in exact ratio to the number of sneezes and the vigor with which they are delivered.

The classes of diseases which most prevail in China, are ophthalmic, cutaneous and gastric. Intermittent fevers are also common. Dr. Lockhart ascribes the prevalence of diseases of the eye to the practice barbers have of turning the lids over and clearing their surfaces of the natural secretions of the eye.

Their custom is, when ill from colds or fever, to suspend work, go to bed and stop eating food of any kind; which in most cases allows nature to work her own cure. Mr. Shen Woon, Consul in New York City, says: "Canton is a province where medical practice is most deceptive; the central part of China, where I am from, is not in lack of good doctors, and this affirmation is warranted by my personal experience. In China we use chiefly vegetable remedies, which are soothing, invigorating and healing by nature."

The Chinese are also a temperate people and their moralists have always inveighed against the use of spirits, and the name of I-tih, the reputed inventor of spirituous drinks, more than 2,000 years before Christ, has been handed down with opprobrium, as he was himself banished by the great Yu for his discovery. Brandy is used in the collapse stage of dysentery and cholera as a *dernier* resort, and is called the "life prolonging draught." But the people are taught that the habitual use of it "injures the gall-bladder, ruins the stomach, and rots the intestines." Whisky, which they distill from corn, millet and the juice of sorgo, they use principally for preparing their tinctures.

No medical "faculty" has the making of a Chine doctor. If he can pass the competitive examinations that every Chinaman is subjected to, if he wishes to be anything above a hewer of wood and drawer of water, he has the right to choose the medical profession the same as any other calling. Neither emperors nor mandarins, nor literary chancellors, nor imperial commissions charge themselves with any concern in the matter, but philosophically dismiss it with the theory that it is to the interest of the sick millions to see to it that the doctor of their choosing understands his business.

Novel Surgical Treatment of Exophthalmic Goitre.—Dr. Lencke, of Hamburg, reports two cases of exophthalmic goitre in which surgical treatment of goitre produced "great relief" of symptoms. The first case was a lad, æt. 17, who had the classical symptoms of the disease—rapid heart, palpitation, prominence of the eyes, and goitre. He came under treatment on account of a sudden access of the swelling, which, by the pressure it exerted, produced great distress with extreme cyanosis. The heart was rapid and irregular, no rest or sleep could be obtained, and the patient was in imminent danger of asphyxia. Tracheotomy was performed, and a week later one-half of the tumor was extirpated. The operation was accompanied by much hæmorrhage, which, however, stopped spontaneously, and recovery was uninterrupted. The symptoms rapidly vanished, the ophthalmus disappearing, and the heart becoming quiet and regular in action. The improvement was maintained until the time at which the paper was written. The second case was that of an older patient, and was attended with similar results.—*Canada Lancet.*

The Treatment of Gall-Stones.—Dr. W. W. Seymour, of Troy, in a paper on this subject, after reviewing all the theories as to the possibility of successfully dislodging, dissolving, or otherwise effecting the removal of gall-stones by medicinal agents, concluded with the emphatic opinion that these accretions could not be dissolved and that all medical treatment for their dislodgement was likely to prove valueless. He held that operation should be early resorted to in a well-defined case, and an exploratory incision should be made where doubt existed. The mortality, where the operation was undertaken before complications had arisen, was but small, and it should be remembered that a post-mortem diagnosis was of no use to the patient and of very little consolation to the friends.—*New York Med. Jour.*

John C. Baker & Co., Philadelphia.—This house, having an existence of more than sixty years, with a reputation second to none, is a sufficient guarantee for the uniformity and excellence of their compounds of Cod Liver Oil with malt and other ingredients.

WEEKLY MEDICAL REVIEW.

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William Dickinson, Associate Editor, 1322 Olive St.

TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this Review, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings, carefully prepared in ink, accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the St. Louis Weekly Medical Review, 520 Olive Ltreet.

All letters containing business communications or refering to the publication, subscription, or advertising department of this Review, should be addressed to The Medical Review Association, 914 Locust Street, St. Louis.

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SATURDAY, MARCH 28, 1891.

Missouri State Legislature on Medical Education.

In the House, on the morning of March 16, Dr. Abraham's bill, requiring a three years' course for students, before they may be allowed to receive a degree in medicine, was passed by a vote of eighty-two to twenty-two.

The bill adds six new sections to the present law, as follows:

Sec. 6,871*a*. When a student applies for matriculation to any medical college, recognized as such by the laws of this State, he shall present to the faculty of said college credible certificates of good moral standing, diplomas of graduation from a good literary and scientific college or high school, or a first-grade teacher's certificate; or, lacking said certificate, he shall undergo a thorough examination in the branches of a good English education, including mathematics, English composition and elementary physics, or natural philosophy.

Sec. 6,871*b*. The branches of medical science to be included in the course of instruction shall be: Anatomy, physiology, chemistry, materia medica and therapeutics, theory and practice of medicine, pathology, surgery, obstetrics and gynæcology, hygiene and medical jurisprudence.

Sec. 6,871*c*. The time occupied in the regular courses or sessions from which students are graduated shall not be less than six months or twenty-four weeks each. Three full courses of lectures, no two of which shall be within one and the same year of time, shall be required for graduation with the degree of doctor of medicine.

Sec. 6,871*d*. Regular attendance during the entire lecture course shall be required of all students, allowance being made only for absence occasioned by the student's sickness, such absence not to exceed 20 per centum of the course. Regular examinations or quizzes shall be made by each lecturer or professor daily, or at least twice each week. Final examinations on all branches shall be conducted, when practicable, by competent examiners other than the professors in each branch.

Sec. 6,781*e*. Each student shall have dissected during two courses, and attendance during at least two terms of clinical and hospital instruction shall be required.

Sec. 6,871*f*. The college must show that it has a sufficient and competent corps of instructors and the necessary facilities for teaching, dissections, clinics, etc.

It will be seen that even though the above bill should become a law it does not necessarily follow that the standard of medical education will be greatly elevated. It is very true that the bill proposes a general increase in the requirements for matriculation, and the length of study required for graduating, but the enforcement of its provisions is almost wholly left with the discretion of the respective faculties, and hence it is not reasonable to suppose that any special difference will be accorded any law entirely devoid of punitory authority.

Competition among medical colleges is quite as sharp as in any other business, and common sense would at once suggest that the law is likely to prove a failure in all merely voluntary conditions. No part of the bill except the compulsory provisions will likely receive serious consideration.

An Inadequate Frontispiece.

In the sacred name of art, and on behalf of womankind as it blooms and fructifies in the sunny South, we wish to protest against the title-page of our picturesque cotemporary, *The Dixie Doctor*. The said title-page contains the portraits of Drs. McDowell, Long, Sims and Battey, each artistically delineated and set in the four corners, like the angels of the Apocalypse. Nobody can complain of such tribute to historic greatness. But in between these is the artist's conception of a doctor's office, with a desk, a doctor and a lady. It is this

Georgia simulacrum of the professional workshop with which we must, in the most amiable spirit, find fault. In the first place, we note that the doctor in the picture sits comfortably back in a cushioned chair, while the lady is obliged to sit *vis-a-vis*, on a hard-bottomed, rectangular arrangement, to her most evident discomfort, and with the probable peril, in time, of gluteal induration and articulo-muscular overstrain. The situation of the lady is unjust to the chivalry of the South. Besides, the patient herself is not all our fancy has painted, or our vision has realized, of the lovely types of womanhood which flourish among the cotton, the sugar and the corn. We beg the artist to reconstruct his inadequate creation. Let him first see a real Southern doctor meet and treat his countrywoman, and he will blush at his performance.—*Med. Record.*

The above may be diagnosed as a mild form of macsycophantism. Suppose the *Dixie Doctor* choses to pose a feminine simulacrum upon "a hard-bottomed, rectangular arrangement," from a traumatic stand-point we fail to see why that should provoke the charge of gluteal induration and articulo-muscular overstrain upon its Huzza.

St. Louis Medical Society.

The meeting of the St. Louis Medical Society on March 21, was one of unusual interest. Among other interesting pathological specimens presented, was one by Dr. L. Bremer, of extreme rarity; it being that of an echinoceous cyst the size of a hen's egg, removed from the cranial cavity of a girl, æt. 11, who had manifested many paretic and irritative symptoms. The operation was performed by Dr. H. H. Mudd, of this city, and the patient, at latest advices, thirty hours after the operation was in a hopeful condition.

Dr. Bremer kindly prepared and exhibited the specimen under the microscope, thus affording to the members present, the opportunity, which may never again occur, of seeing a specimen of this vagrant, whose modes of travel and transmission are so mysterious.

Members lose much by absenting themselves.

A full report of papers and discussions thereon will appear each week in the Review.

New Private Hospitals.

In the near future there will be opened in this city three private hospitals, for the treatment of special surgical diseases. Indeed one has already opened its doors, and the other two will follow closely in its wake.

This plan of caring for the cases coming within the scope of special surgical branches is becoming deservedly popular with the profession everywhere, and while St. Louis has been slow to move, there is a veritable boom in that direction, just at this time.

Cincinnati College of Medicine and Surgery.

At the recent commencement exercises of the Cincinnati College of Medicine and Surgery, the faculty address was delivered by Prof. Giles S. Mitchell, and the class oration by Dr. Louis M. Schiel. Three general prizes for the highest general averages in all the examinations of the graduating branches, were awarded as follows, viz.:

First gold medal, to Dr. John C. Kunz, of Cincinnati; his general average being 92.6. Dr. Kunz leaves immediately for a two years' study at Vienna.

Second gold medal, to Dr. Louis C. Schiel, of Walnut Hills; his general average being 90.3.

Third gold medal, to Dr. William Roush, of Elida, Ohio; his general average being 89.1.

Medical Journals in the World.

There are at present 850 medical journals published in the world.

The annual issue of any or all of these, however, must be a mere guess, as the number issued must vary considerably at each weekly or monthly edition, owing to new subscriptions, cancelled subscriptions, special issues, etc.

MEDICAL ITEMS.

Change of Address.—Dr. H. C. Harkins has removed to the residence, recently purchased by him, No. 3654 Finney Ave.

British Medical Journal.—The issue of the *British Medical Journal* now exceeds 16,500 copies weekly, each issue embracing 60 pages of solid reading matter.

Health Department, Cincinnati.—Mortality report for the week ending March 6, 1891: 120 deaths from all causes, of which 13 were from consumption and 10 from bronchitis; annual rate per 1,000, 20.8.

Cincinnati Obstetrical Society.—Officers: Dr. E. W. Mitchell, President; R. B. Hall, Vice-President; T. P. White, Recording Secretary; E. S. McKee, Corresponding Secretary; J. L. Cleveland, Treasurer and Librarian.

Dr. C. C. G. Comegys, Cincinnati's Nestor, has been re-elected President of the Board of Trustees of the Cincinnati University. The University Library has recently received a large and valuable accession by the library of the late Matthew Thomas, who, also, by his will, bequeathed to the same institution $150,000.

Who among the wealthy and philanthropic of St. Louis will first imitate the example of this benefactor? Perpetual honor and perpetual fame will be his reward.

Female Students.—In two of the most famous universities of the middle ages, those of Bologna and Salerno, there were female students and female professors, one of whom, at least, Anna Manzolini, attained great distinction as a professor of Anatomy. By the school of Bologna the degree of M.D. was first conferred.

Correction.—In the Review of March 14, page 220, line 17, the word *not* has inadvertently found its way into print; and in the sentence succeeding, instead of 100 ovariotomies, it would be more accurate to state 229 ovariotomies, of which Tait performed 129, Bantock, 70, and Bergman 30 (?), without a single death.

Berlin Letter.—Through the courtesy of Dr. Fritz Neuhoff, No. 1231 Chouteau ave., this city, we publish in this issue of the Review an interesting letter from Dr. Al. J. Kanne, now at Berlin. The letter embodies an instructive abstract of the proceedings of the meeting of the Berlin Medical Society, held on the night of the 4th inst.

The Academy of Medicine, Cincinnati, O., on the occasion of its recent banquet, began to agitate the subject of a "house and home of its own, this house and home to be prepared for the special accommodation of our societies, with reading rooms, library, parlors, dining room and kitchen, and all the other appurtenances of a first-class establishment."

Welcome!—*The Journal of Gynecology* (prospective) by C. N. Smith, M.D., Toledo, Ohio, will be welcomed to our list of exchanges, and in the enterprise we wish him the largest amount of success. By sending it forth, void of all usual accessories, he manifests a faith that is highly commendable and we sincerely hope his expectations will be realized.

Dr. Bransford Lewis announces in the current issue of the Weekly Medical Review that he vacates the directorship of that journal in favor of Dr. G. W. Broome, who, we doubt not, will make a clean sweep, as the proverbial new broom is said to do.—*Times and Register.*

Whoa! there, Dr. Waugh!

Influenza in Russia.—Prof. Tessier, of the medical faculty of Lyons, has returned from Russia, whither he was sent to take evidence upon the course of influenza there, and the various conditions of its evolutions. He found that influenza is a growth of Russian soil, and when not a raging malady, is a smoldering one. The way the people live in winter, locked up in heated houses, the flatness of the soil, its consequent bad drainage, and unusually sodden condition when the April thaw begins, the filthiness of the farm-yards, the village streets, and the rivers which, becoming suddenly swollen, and on falling, leave a putrid mass behind; all conduce to make influenza epidemic. Its microbe is, in fact, to be found in this mud. Dr. Tessier calls it a strepto-bacillus.—*The Advance.*

Supreme Court Decision.—We take pleasure in publishing for the information of the readers of the Review the decision of the Supreme Court of this State in the case of James Hathaway vs. the State Board of Health. The fight which Dr. Homan, the secretary, has so valiantly carried to a successful termination, was stubbornly contested throughout. The principal ground upon which the Board of Health maintained its defense was that Hathaway's methods of advertising tended to mislead and deceive the public, and that such conduct was unprofessional and dishonorable.

Number of Blind Increasing.—Population of United States in 1870 was 38,558,371; the number of blind then was 20,320. The population in 1880 was 50,155,783, and the number of blind was 48,929. Therefore while the population during this decade increased 30.09%, the number of blind persons increased 140.78%. The number of blind increases from the North to the South, and decreases from East to West. The same rate of increase continuing during the last decade, both of population and blindness, the statistics of 1890 will show that there are now in the United States more than 60,000 who are afflicted with the greatest calamity that can befall a human being. This exposition reveals a fearful truth, and, in view of it, imposes a serious obligation upon our legislators to make State provisions for preventing its occurrence.

FOREIGN CORRESPONDENCE.

BERLIN LETTER.

Berlin, March 5, 1891.

Dear Dr. Neuhoff.—Last night, I attended the meeting of the Berlin Medical Society. I will give you a brief abstract of the proceedings which I know will be of interest to you.

In the absence of Virchow, Dr. Henoch took the chair. Dr. Oestreicher, assistant to Virchow, presented the anatomical specimens of a woman who had for some weeks been treated by injections of tuberculin. The autopsy revealed miliary tuberculosis of the peritoneum, and an abscess cavity extending from the left lung to the stomach and spleen. It is a question, whether the tuberculin played any part in the causation of this abscess.

Prof. Ewald stated, that Dr. Liebman of Triest had sent him two specimens of blood which without doubt contained tubercle bacilli. In the early part of January, when Dr. Liebman first announced this discovery which he had made on patients treated by tuberculin injections, several other observers failed to verify his ob-

servations. Prof. Ewald remarked, that tubercle bacilli had been found in the blood of tubercular patients long before tuberculin came into use. Later on, Prof. Ewald ventured the statment, that possibly the tuberculin itself contained bacilli. He then read a note from a Russian professor who claims to have found other pathogenic bacteria in tuberculin. Prof. Liebreich resented any such statement, which might throw suspicion on the purity of tuberculin.

Then followed the discussion of the Liebreich remedy. Dr. Saalfeld presented a boy with facial lupus. The lad had received five injections of ½ decimilligrammes of acid cantharidate of potassium. The lupus had become pale, flattened and smaller. No thought of a cure can however as yet be entertained.

Dr. Landgraf reported 10 cases in which he had tried Liebreich's remedy. Five were cases of acute diffuse tubercular laryngitis. These remained uninfluenced by the treatment, except that the cough became looser and the expectoration more abundant. The remaining five cases were affected with chronic laryngitis. The following favorable changes were observed in these. The thickened and redened mucous membrane became paler, and diminished in thickness. A crater shaped ulcer became flattened. In two of the cases, which had received daily injections, threatening symptoms due to œdema of the larynx were observed.

Dr. Lublinski reported 16 cases of laryngeal and pulmonary troubles treated by the Liebreich method. Every one of these cases showed signs of improvement. Albuminuria and strangury were however observed in many of them.

Prof. B. Fraenkel's experience coincided with that of Lublinski. He cautioned against the too frequent repetition of the injections of the Liebreich remedy, as being liable to cause kidney trouble. He also argued against the entertainment of unwarranted optimistic views as to the results from the remedy, whose value time and experience alone can determine.

Toward the close of the meeting, Prof. Liebreich remarked, that he would be the first to discard his remedy, should he find it productive of dangerous after-effects. He thought that the bad effects thus far observed were of little significance.

After adjournment, I asked Dr. Rosenberg (first assistant to Prof. Fraenkel) for his opinion as to the present value of "cantharidate of potassium." He said: "It is an experience which dumbfounds the observer, to have a patient with tubercular infiltration, thickening and swelling of the inter-arytenoid mucous membrane, who complained of painful deglutition, come to him the day after an injection with cantharidate has been given him, and exclaim, 'I an so much better; I can swallow without pain.' On examination you find, that the swelling has diminished. You gradually increase the dose of the injection until 2 decimilligrammes is reached, the swelling and thickening in the meantime continuing to diminish. But now we must pause. Can we raise the dose? It happens, that in many cases even the above dose produces renal irritation. What will happen, should the dose be increased to 3, 4 or 5 decimilligrammes? It appears, that with a dose of 2 decimilligrammes, one-half only of the cure is accomplished."

I hear, that Dr. Guttmann and Prof. Ehrlich have modified the dosage of tuberculin, and claim to be thus enabled to prevent any violent reaction. They commence with one decimilligramme and increase by one decimilligramme at each injection, which is given daily, until one milligramme dosage is attained. In this manner, the patient establishes a kind of tolerance for the tuberculin.

Promising to keep you informed as to anything new which may transpire in the medical world of Berlin,

I remain yours truly.

AL. J. KANNE, M.D.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, March 21, 1891, The Vice-President, DR. MULHALL, in the chair.

FOREIGN BODY IN THE EYE.

DR. WILLIAMS.—Six years ago, a young man in Illinois, while working with a gun, had occasion to explode an ordinary gun-cap. A piece of the cap struck him in the left eye, cut through the upper sclero-corneal junction, passed into the interior of the ball and lodged somewhere in the interior. The eye bled considerably at the time, and in a few hours the eye internally filled with blood, so as to obscure vision completely, and ever since the young man has had no vision in that eye. The eye was painful for five or six months following the accident, then the pain subsided; and for more than five years past he has suffered no pain whatever. Sometime after the accident he had the misfortune to contract granulated lids in addition to the injury he received, which to some extent continues. He thought the vision in the other eye was failing him. He complained considerable of pain, in, about, and, more particularly, behind the eye. Both eye-balls were quite free from redness, and no irritation was present in either one; the injured eye was soft, and about one-half the natural size. The question arose respecting the necessity of its removal; the only contra-indication being the fact that the eye had given him no pain for more than five years, and even now there was no redness and apparently no irritation; but only symptoms ominous of sympathetic trouble in the other eye. So long as the foreign body remained in the injured eye, the man was not free from danger to the sound eye; if the eye-ball was removed, that source of danger would be absolutely removed. I, therefore, advised its removal; he consented, and the operation was performed. Before opening the the ball hard nodules could, by slight pressure, be felt in its interior. On cutttng into it, a large mass of pig-

ment, lymph and other products of inflammation were found in the vicinty of the site of the original injury. It required considerable force as I pulled a mass of material out and stripped it of lymph and pigment. Em bedded in the mass was found a large piece of a gun-cap; and surrounding all, was quite a large deposit of bone tissue in the form of a horse-shoe, nearly a complete ring. This was hard, and of a grayish color; two or three smaller pieces detached were also found. This is the first specimen of the kind the speaker had ever met with, where bone-tissue had formed in an eye injured in this way. Bone-tissue sometimes forms in the interior of old stumps, but never, so far as he knew, has a case been reported where bone formation took place in the interior of the eye thus injured. The sequel has abundantly demonstrated the propriety of the operation.

Dr. Pollak said it is always proper to enucleate an eye, when it is known there is in it a foreign body; whether pain is present or not; indeed, it is absolutely necessary; because sooner or later sympathetic ophthalmia will ensue in the other eye. He had presented to the Society a specimen of an eye containing a fragment of a gun-cap which had quietly been in it for four years, when quite unexpectedly, sympathetic ophthalmia ensued in the other eye, which rendered its removal imperative. The removal of this eye-ball was perfectly proper.

Such a deposit of calcareous or bony matter in the eye is also occasionally presented. The speaker had presented here a specimen of the same kind, removed by Dr. Parsons. It was an ordinary calcareous deposit, as in this case.

Dr. Dickinson.—I kindly except to the designation applied by the doctor to this material; it cannot properly be called bone; it is doubtles calcareous matter—so is chalk, so is bone; but it is not strictly bone.

A few years ago, when the practice of enucleation was generally practiced in England by specialists, the advice was given, that whenever the function of one eye had been destroyed by traumatism, it should be removed, in order to remove all danger to the remaining eye. There was no doubt about the propriety of the removal of the eye-ball in the doctor's case, as the result shows.

Dr. Williams said he did not know that this is bone tissue, but he believed it was, not being white like chalk; but grayish in color, like bone.

Dr. Claycamp read a paper narrating a case of

LaGrippe, Accompanied with Multiple Abscesses.

Continuing, the doctor said: Since that time, he was called on February 28, and on March 3, and found she had a swelling of her left thigh in which a large abscess had formed. He opened another abscess on the 9th or 10th in the right leg; in all he opened five abscesses. Her appetite is now good, and she will probably recover.

Dr. Fry asked if there was no possible explanation of the occurrence of these abscesses—no sepsis aside from the la grippe. Had she suffered recently from illness?

Dr. Claycamp.—Not to my knowledge, except a confinement three years since.

Dr. Fry said.—We are constantly having accessions to the etiology of la grippe. He had seen a number of cases in which there was a myelitis, which in some cases was very acute, very severe and extensive. He had never seen a case in which there was a tendency to suppuration, although in some cases the inflammation was quite circumscribed. In one of the first cases of la grippe he saw last year, there was an inflammation of the calf of the leg, manifested by a spherical knot like an orange. It projected from the muscle, and looked pretty angry, but it did not develop into a suppurative condititition. A week after its subsidence a similar swelling appeared in the calf of the other leg, but more diffuse, involving all the muscles of the calf to some degree. Among statistics in his possession, mention is made of the occurrence of multiple abscesses. The patient died, and abscesses were found in the liver; and it was the author's opinion that it was due to the grippe. Of course in cases of this kind it is very necessary to exclude every possible source of infection.

Dr. Mulhall thought the case of Dr. Claycamp was evidently one of the lymphatic glands, from the anatomical situation of the parts affected, and from the pus formations that speedily ensued. He had seen many cases of grippe this winter, and had noticed in a considerable number, that the lymphatic glands of the neck, behind the sterno-cleido mastoid, even to the scalp, and in some cases of the pharynx, became enlarged and tender, but in no case had they suppurated. He had seen a similar condition in the upper respiratory organs, due to grippe, which is now epidemic in St. Louis, and indeed all over the country. In this affection, this winter, he had observed a peculiar proclivity to suppuration, the inflammation had not been of a very virulent type; and yet some of the sequelæ, for example, on the nervous system, have been quite serious. He had seen cases in which there seemed to be no involvement of the drum, external or middle ear, and yet there was almost total deafness; the labarynth seeming to suffer more than the more external appendages. Many patients complain of extensive sore throat, yet on a thorough examination of the throat, no inflammation was apparent. The upper respiratory organs and the adjacent sinuses, frontal and maxillary, have been very much involved; not as in ordinary cold, but very frequently much inflamed, accompanied with excruciating pain. In two cases he had opened the maxillary sinus, thinking pus must be present; but none was found. The symptoms were of a septic nature. When invading the respiratory passages, its virulence is expended upon the larger bronchi, almost exclusively. Last winter cases occurred in which the alveoli and smaller bronchial tubes were excessively implicated. Many such cases occurred of catarrhal pneumonia, which persisted, and in the course of three, four or five

months, were followed by the generation of tubercle bacilli, with very rapid dissolution of the lung, and death. But this type has not been seen this winter. But in all cases the principal seat of the inflammation was in the trachea, not tending to suppuration rapidly, yet the cough was persistent, the mucous viscid; constant irritation without rapid formation of inflammatory products. In many cases it was impossible to see the rings of the trachea (which ordinarily can be easily seen), on account of the extensively swollen condition of the mucous membrane. In some cases were seen hæmorrhagic specks; in others expectoration of blood from the chest occurred. On the whole, the type of cases this winter are far milder than last year—do not implicate as deeply any of the organs. The grippe last year in St. Louis was the occasion of many deaths, if not at the time, then subsequently. The patients in many cases of women have been those who have had old pelvic troubles, which had remained in a latent, suppressed condition; these have been aroused to activity and gave rise to severe, and, in two instances, to fatal peritonitis and cellulitis. Having had occasion to operate on a patient (lady) for some growths, he found great difficulty in preventing their return. In speaking to her about her general health, she said she never had been sick, had never had pelvic symptoms, or any other; about ten days ago he received information that she had grippe; and a week later he learned, through the papers, of her death from peritonitis. The family physician being called in to see her, stated that she had grippe; two or three days later peritonitis supervened; an examination detected a pelvic tumor, and believing that this was the cause of the peritonitis, laparotomy was resorted to, and an old sac was found, containing a pint of pus; and adhesions also of it to the intestines. This lady had carried a pint of pus in the pelvis for several years, and did not suffer from it until she was attacked with the grippe.

A very worthy and esteemed member of the profession lately died; the post-mortem revealed trouble of the liver and kidneys existing for years; and yet, until he became affected with grippe, he had manifested no symptoms.

Dr. Barclay thought the difference between the symptoms this year and last, implicating the ear, was very marked. Two of the worst cases of ear disease he had ever seen were occasioned by the disease about a year ago. He was called to a patient, having at the time a temperature of 105°; frightful pains in the head; pulse, 130. Both ears being examined, the atrium and attic were both bulging; both were punctured, and a considerable amount of pus was liberated. The next day the patient being no better, it was intimated to the family physician, that before other operations were suggested, to institute a general physical examination. The patient's lungs were found to be involved; he was affected with a regular attack of grippe, with pneumonia; the ear trouble subsided very promptly, long before the grippe. This patient recovered.

Dr. Williams observed the grippe has been very severe in Cincinnati for some time, also in Indiana; in fact, it prevails pretty well all over the country, and in rather a malignant form. Many deaths have occurred from it. An intimate friend on a visit there recently died, from acute encephalitis, following the disease, it being secondary and after the original attack had disappeared; she was sick only two or three days. In some cases in Indiana fatal pneumonia followed the attack; therefore, while here the disease is rather mild, in other places it has been quite severe.

Dr. Claycamp stated as his experience, that cases of grippe this winter had been more severe than last winter. He had lost three cases within the last two weeks. Women attacked with grippe after confinement were almost sure to die; he had had two such cases, one of whom, about two weeks since, took grippe with pneumonia, and died two days thereafter; another having been confined, took the grippe, and in a few days died.

Dr. Harkins had seen a very interesting case, presenting a novel feature. About February 11, he was called to see a gentleman, 54 years of age, who, on the morning of the same day, had swallowed by mistake, about a half ounce of crude ammonia. He is a hotel keeper and "tends the bar;" he was not an intemperate man, though it was his habit to take a little liquor in the morning, followed by a draught of soda. Unfortunately, by the side of a half empty bottle of soda was the bottle of ammonia; taking a small glass in which was the whiskey, he poured into it a little from the ammonia bottle, and, throwing back his head, swallowed the mixture before he perceived his mistake. It strangled him at first. The result was a stricture of the œsophagus. His suffering was intense, but was relieved by swabbing the throat with a cocaine solution. On the sixth day there appeared an effusion of blood beneath the derma, in both legs from the knee down, presenting a bright scarlet flush. Being directed to rub them, it gradually disappeared. Extensive ecchymoses thus localized, and simultaneously, in both limbs, seemed an unusual phenomenon, however associated with the trauma mentioned. It was attended with intense itching of the extremities, probably due to distension of the capillaries.

Dr. Jacobson suggested that ammonia may have caused the effusion. He had seen quite a number of cases in women where the lower extremities were similarly affected. It is perhaps a coincidence that both lower limbs in this case were affected; in the majority of cases of so general ecchymosis, the effusion is in the lower extremities.

SOCIETY NEWS.

ST. LOUIS MEDICAL SOCIETY.

At the last meeting of the St. Louis Medical Society, a committee consisting of Drs. G. W. Broome, Wm. Dickinson and Edward Borck, was appointed to select

delegates to the American Medical Association, which meets at Washington, May 5, 1891.

At the same meeting, Dr. Jordan was appointed to arrange transportation for the delegation.

The following names were selected by the committee and approved by the Society.

LIST OF DELEGATES.

Le Grand Atwood, M.D.	Geo. W. Broome, M.D.
Y. H. Bond, M.D.	Ludwig Bremer, M.D.
Waldo Briggs, M.D.	A. V. L. Brokaw, M.D.
N. B. Carson, M.D.	Walter Coles, M.D.
H. C. Dalton, M.D.	W. B. Dorsett, M.D.
Frank R. Fry, M.D.	Robert Funkhouser, M.D.
F. A. Glasgow, M.D.	E. H. Gregory, M.D.
N. Guhman, M.D.	W. A. Hardaway, M.D.
C. H. Hughes, M.D.	R. M. Jordan, M.D.
I. N. Love, M.D.	F. J. Lutz, M.D.
Wm. Dickinson, M.D.	H. H. Mudd, M.D.
J. C. Mulhall, M.D.	W. B. Outten, M.D.
Wm. Porter, M.D.	T. F. Prewitt, M.D.
A. B. Shaw, M.D.	H. Tuholske, M.D.
A. H. Ohman-Dumesnil, M.D.	

AMERICAN MEDICAL ASSOCIATION.

The forty-second annual session will be held in Washington, D. C., on Tuesday, Wednesday, Thursday and Friday, May 5, 6, 7 and 8, commencing on Tuesday at 11 A.M.

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by representation in their respective State Societies, and from the Medical Department of the Army and Navy, and the Marine-Hospital Service of the United States.

"Each State, County and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, Territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association.

Members by Application.—Members by Application shall consist of such Members of the State, County, and District Medical Societies entitled to representation in this Association as shall make application in writing to the Treasurer, and accompany said application with a certificate of good standing, signed by the President and Secretary of the Society of which they are members, and the amount of the annual membership fee, five dollars. They shall have their names upon the roll, and have all the rights and privileges accorded to permanent members, and shall retain their membership upon the same terms.

The following resolution was adopted at the session of 1888:

That in future each delegate or permanent member shall, when he registers, also record the name of the Section, if any, that he will attend, and in which he will cast his vote for Section officers.

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, at once, lists of their delegates.

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries are, by special resolution, requested to send him, annually, a corrected list of the membership of their respective societies.

AMENDMENTS TO THE BY-LAWS.

Offered by Dr. A. L. Gihon, United States Navy:

"That the first day of the meeting of this Association shall be the first Wednesday of May or June respectively, instead of Tuesday.

By Dr. X. C. Scott, Ohio:

"That the Committee on State Medicine be abolished, inasmuch as the Section on State Medicine occupies the entire ground."

By Dr. E. A. Wood, Pensylvania:

"That the word Physiology be stricken from Section 1, and a new Section entitled the Section on Dietetics and Physiology be formed."

By Dr. J. C. Culbertson, Ohio:

"That the State and Geographical District Societies in affiliation at this time with this Association, having a membership of 100 or more, shall be recognized as branches of the American Medical Association.

That all members of said Societies enjoy all the rights and privileges now accorded to the delegates."

By Wm. H. Daly, Pensylvania:

"That in future the permanent members have all the rights of delegates."

ADDRESSES.

On General Medicine, by Dr. E. L. Shurly, Detroit.

On General Surgery, by Dr. Jos. M. Mathews, Louisville, Ky.

On State Medicine, by Dr. W. L. Schenck, Topeka, Kan.

SECTIONS.

"The Chairman of each Section shall prepare an address on the recent advancements in the branches belonging to his Section, including suggestions in regard to improvements in methods of work, and present the same to the Section over which he presides on the first day of its annual meeting. The reading of such an address not to occupy more than forty minutes. * *" —*By-Laws.*

Practice of Medicine and Physiology.—Dr. Victor C. Vaughan, Chairman, 15 South State St., Ann Arbor, Mich.; Dr. George Dock, Secretary, Galveston, Texas.

Obstetrics and Diseases of Women.—Dr. Charles A. L. Reed, Chairman, 311 Elm St., Cincinnatti, O.; Dr. Howard A. Kelly, Secretary, 905 N. Charles St., Baltimore, Md.

Surgery and Anatomy.—Dr. Theo. A. McGraw, Chairman, 75 Cass St., Detroit, Mich.; Dr. W. E. B. Davis Secretary, Birmingham, Ala.

State Medicine.—Dr. J. D. Plunket, Chairman, 145 N. Spruce St., Nashville, Tenn.; Dr. Benjamin Lee, Secretary, 1532 Pine St., Philadelphia, Pa.

Ophthalmology.—Dr. Leartus Connor, Chairman, 103 Cass St., Detroit, Mich.; Dr. T. E. Murrell, Secretary, 111 E. Fifth St., Little Rock, Ark.

Laryngology and Otology.—Dr. Carl Seiler, Chairman, 1204 Walnut St., Philadelphia, Pa.; Dr. A. B. Thrasher, Secretary, 157 W. Ninth St., Cincinnati, O.

Diseases of Children.—Dr. William Perry Watson, Chairman, 319 York St., Jersey City, N. J.; Dr. Hobart A. Hare, Secretary, 222 S. 15th St., Philadelphia, Pa.

Oral and Dental Surgery.—Dr. E. S. Talbot, Chairman, 125 State St., Chicago, Ill.; Dr. Henry W. Morgan, Secretary, 211 North High St., Nashville Tenn.

Neurology and Medical Jurisprudence.—Dr. T. D. Crothers, Chairman, Hartford, Conn.; Dr. Harold N. Moyer, Secretary, 434 West Adams St., Chicago, Ill.

Dermatology and Syphilography.—Dr. L. Duncan Bulkley, Chairman, 4 East 37th St., New York, N. Y.; Dr. W. T. Corlett, Secretary, Cleveland, O.

Meteria Medica and Pharmacy.—Dr. F. Woodbury, Chairman, 218 S. 16th St., Philadelphia, Pa.; Dr. G. W. Ewing, Secretary, Nashville, Tenn.

"A member desiring to read a paper before a Section should forward the paper, or its title and length, (not to exceed twenty minutes in reading), to the Chairman of the appropriate Section at least one month before the meeting—*By-Laws.*

Committee on Arrangements: Dr. D. C. Patterson, Chairman, 919 I Street, N. W., Washington, D. C.

WILLIAM B. ATKINSON, M.D.,
Permanent Secretary.

CENTRAL TEXAS MEDICAL ASSOCIATION.

The next meeting of the Central Texas Medical Association, will take place Tuesday, April 14, 1891, for which the following programme has been appointed:

1. Puerperal Pelvic Peritonitis. By Dr. H. C. Ghent; discussion to be opened by Drs. Douglas, Harris, and J. M. Frazier.

2. Anodynes and How to Use Them. By Dr. S. D. Davidson; discussion to be opened by Drs. W. W. Wilkes and J. T. Valiant.

3. Eczema. By Dr. N. A. Olive; discussion to be opened by Drs. W. B. Carpenter and J. E. Brown.

4. Pulmonary Tuberculosis. By Dr. M. D. Knox; discussion to be opened by Drs. H. L. Taylor and S. V. Wagner.

5. Treatment of Fractures of the Long Bones. By H. W. Brown; discussion to be opened by Drs. W. C. Blalock and A. M. Curtis.

Volunteer papers and reports of cases are cordially invited.

W. O. WILKS, Secretary. DANIEL PARKER, President.

DR. HOMANN AND QUACKERY.

Opinion of the Supreme Court in the Case of Hathaway *v.* The State Board of Health; Delivered Feb. 2, 1891. The Relation of Medical Advertising to the Medical Practice Law of Missouri, and the Powers and Duties of the State Board of Health in Regard Thereto.

This is a proceeding commenced in this court by mandamus to compel the respondents, who constitute the State Board of Health, to issue to Dr. Hathaway, the relator, a certificate to practice medicine in this state.

I. The first question is one of pleading. The petition for the writ after alleging that the relator was a graduate of a medical college in good standing and that he presented to the respondents his diploma and the respondents found the diploma to be genuine, and the college in good standing, proceeds to state in substance, that the respondents refused to issue to him a certificate "upon the alleged and only ground that relator's method of advertising himself as a specialist in the treatment of private, blood and skin diseases was dishonorable and unprofessional, and that by such advertising he was guilty of unprofessional and dishonorable conduct; but relator denies that he has been guilty of any unprofessional or dishonorable conduct in and by such advertising or in any other manner, and relator charges the truth to be that said defendants, as such board, have knowingly issued certificates to divers physicians and surgeons who are and claim to be specialists and advertise as such in the same manner as relator," and that the board "in refusing to grant to him a certificate were and are actuated, governed and controlled by prejudice, bias, caprice and partiality, and wantonly refuse to issue such certificate to relator," etc. These statements concerning the reason why the board refused to issue a certificate and bias and prejudice on the part of the board were not set forth or recited in the alternative writ.

To the writ the Secretary of the board, for want of means to engage counsel it seems, made return. This return concedes that the relator had and held a diploma from a medical institution in good standing, and it goes on to state that the relator was heard in person and by counsel, and on July 11, 1889, the board refused him a certificate because he was found guilty, on charges duly preferred, of unprofessional and dishonorable conduct in the habitual publication of advertisments which in the opinion of the board tended, and were designed to mislead and deceive the public and impose upon sick and credulous persons by impossible claims of the treatment of diseases, and for the further reason that he was then engaged in the practice of medicine without a certificate and in defiance of the law. The return further states that the respondents "in their further endeavor to faithfully and impartially discharge their sworn duty under the law" were guided by the ruling of this court in the Granville case, 83 Mo. 123.

To this return the relator made answer, in which he sets up, among other things, the matter stated in the petition and which were not recited in the alternative writ. The respondents filed no reply to this answer, and the claim is now made that those matters stated in the answer stand admitted, and that a peremptory writ should be issued on the face of the pleadings.

The statute, it is true, provides in substance, that the respondent shall make return to the alternative writ, that the relator must plead to or traverse the return, and that the respondent shall then reply, take issue or demur. Still the alternative writ is in our practice the first pleading, and it takes the place of a petition in an ordinary common law action. Handbright v. Town of Dexter, 89 Mo. 190; High on Ex. Legal Rem. Sec. 537. The writ should set forth all the matters stated in the petition, so that the respondent will be informed of the ground upon which the relief is asked. State ex rel. etc., v. Everett, et al., 52 Mo. 94; High on Ex. Legal Rem. Sec. 538. In view of the fact that the pleadings are informal on both sides, and of the further fact that the return was evidently made in view of the matters stated in the petition, we are of the opinion no undue advantage should be awarded the relator, because he has set up matters in his answer which were stated in the petition and should have been recited in the writ.

When we look to the relator's pleadings, taken all in all, we find that he asserts in substance that the board denied him a certificate because he advertised his business in a manner which the board found to be unprofessional and dishonorable, when he was guilty of no such conduct, and that the board in refusing him a certificate acted from prejudice, bias and partiality. On the other hand the respondents say they refused him a certificate because he was found guilty of dishonorable and unprofessional conduct in his method of advertising, and because he persisted in violating the law by practicing medicine without a certificate, and that in refusing the certificate they endeavored faithfully and impartially to discharge their duties, guided by the former ruling of this court. While the return contains no specific denials in terms of the matters stated in the petition and writ, still the matters thus stated in an affirmative form in the return do deny all the matters of substance alleged by the relator; and this form of a denial must be held to be sufficient. Jordan v. Brookmeyer, 97 Mo. 97, and especially so when as here there has been no effort to bring the pleadings to a formal presentation of the tissues.

II. The facts bearing upon the merits of this case, as gathered from the pleadings and exhibitis before us, are these: Hathaway and Dr. Boyd began the practice of medicine in this State as specialists, without having first procured certificates under the statute concerning the practice of medicine and surgery. We infer from what is said that prosecutions had been commenced against them, or complaints lodged before the Board of Health. Under these circumstances they applied to the board for certificates. They presented in due form genuine diplomas issued by medical institutions in good standing; but the board, after hearing them in person and by counsel, made the following order on July 11, 1889: "After due deliberation and upon full consideration of the matter, the board by unanimous vote refused certificate to * * * and James N. Hathaway, for unprofessional or dishonorable conduct, consisting in the publication by them of advertisements in the public press of St. Joseph, Mo., during the present year, said advertisements in the opinion of the board being of a character that tended to mislead and deceive the public, to wrongfully impose on the fears, weakness or ignorance of the sick or credulous, and to defraud the people by false and impossible claims in regard to the treatment of disease." Hathaway again appeared before the board in person and by attorney on January 21, 1890, when the board made this order: "After due consideration of the matter the board by unanimous vote declined to accede to the request, and refused a certificate to Hathaway for unprofessional or dishonorable conduct."

Between the dates upon which the foregoing orders were made, Boyd modified his advertisement so as to meet the approval of the board, and a certificate was issued to him; but the modified advertisement presented by the relator was not satisfactory to the board. The answer of the relator gives a copy of these modified advertisements, but the record does not contain a copy of the advertisements upon which the board made its first ruling.

By Section 6878 of the Rev. Stat. 1889, it is enacted that "The State Board of Health may refuse certificates to individuals guilty of unprofessional or dishonorable conduct, and they may revoke certificates for like causes, after giving the accused an opportunity to be heard in his defense before the board."

This section of the statute imposes upon the board duties which are quasi-judicial in their character. The question whether the applicant is guilty of unprofessional or dishonorable conduct calls for the exercise of judgment and sound discretion. It is a question as to whether the board must hear the evidence and pronounce a conclusion. The principle of law is well settled that mandamus will not lie to review official acts which require the exercise of judgment and discretion. Mandamus may be awarded for the purpose of requiring such officers to proceed and act upon such matters, but does not lie to direct or control the conclusion to be reached. The respondents heard the relator's application and decided that he was not entitled to a certificate, because guilty of unprofessional and dishonorable conduct, and that decision cannot be brought here for review by this proceeding. The case of State ex rel. Granville v. Gregory, 83 Mo. 153, is in point and disposes of the question in hand. Other courts have exprssed the same views under statutes quite like our own. State of Minn. ex rel., etc., v. State Medical Examining Board, 32 Minn. 324; People v. Dental Examiners, 110, Ill. 180. See also Allbutt v. The General Council of Medical

Education and Registration, 23 Law Rep. 400, Queen's Bench Div.

There are some limitations upon the rule just stated; for if the board of health should excercise its powers with manifest injustice, then the courts may and will control the abuse of authority by the writ of mandamus. Illinois State Board of Dental Examiners v. People, 13 N. E. Rep. 201. As the legislature has not defined what is "unprofessional or dishonorable conduct," those words must be understood to mean such conduct as would in common judgment be deemed unprofessional or dishonorable. In determining whether a party is guilty of such conduct there is a broad field for the exercise of judgment and discretion by the board and within which the finding of the board is conclusive. The board of health has no right to prescribe a code of medical ethics, and then declare a breach of that code unprofessional and dishonorable conduct; nor has it the right or power to deny to physicians the right to advertise their profession in the public press. The respondents make no claims of any right to do either of these things. Their claim is that advertisements which tend to mislead and deceive the public constitute unprofessional and dishonorable conduct, and in this they are within the purview of the law. If, however, a physician will, in his advertisements, throw out inducements to patients to submit to treatment, then the matter is within the exclusive jurisdiction of the board. We are not furnished with a copy of the advertisements upon which the board made its first ruling. The burden, however, is upon the relator to show that the ruling of the board is manifestly unjust.

The proof offered to show prejudice and bias on the part of the board is the fact that a certificate was finally issued to Boyd but refused to relator. Boyd modified his advertisement so as to avoid the objectionable features and meet the views of the board, but this the relator did not do. We see no evidence of prejudice on the part of the board. Indeed, it must be remembered that the relatior came to this state and began the practice of medicine without any certificate. So long as he thus knowingly bid defiance to the law, he was not entitled to one. The board of health is charged with the performance of important discretionary duties, and the performance of their duties will not be hampered by mandamus until a case of manifest injustice is shown. The relator has not made out such a case. Peremptory writ denied.

All concur. F. M. Black, J.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service.

For the two weeks ended, March 14, 1891.

W. H. Long, Surgeon. Granted leave of absence for seven days. March 13, 1891.

H. W. Austin, Surgeon. To proceed to Baltimore, Md., for special duty. March 14, 1891.

John Godfrey, Surgeon. Detailed as Chairman of Board for Physical Examination of Officer of Revenue Marine Service. March 4, 1891.

C. E. Banks, Passed Assistant Surgeon. To proceed to Boston, Mass., on special duty. March 7, 1891.

T. B. Perry, Assistant Surgeon. Leave of absence extended thirty days. March 13, 1891.

E. R. Houghton, Assistant Surgeon. Detailed as Recorder of Board for Physical Examination of officer of Revenue Marine Service. March 4, 1891.

HOSPITALS, HOMES, ETC.

St. Louis Poor House, Arsenal Street.

St. Louis Female, Old Manchester Road. Superintendent, W, B. Dorsett, M.D.

St. Louis Insane Asylum, Arsenal Street. Superintendent, Legrand Atwood, M.D.

St. Louis City, Layafette Avenue and Linn Street. Superintendent, H. C. Dalton, M.D. Medical and Surgical Clinics from 2 P.M. to 4 P.M. daily.

The above are city institutions.

St. Vincent's Asylum, South 11th Street.
Protestant Hospital, 1018 N. 18th Street.
Pius Hospital, 14th and O'Fallon Streets.
Good Samaritan, 26th and O'Fallon Streets.
St. John's Hespital, 22d and Morgan Streets.
Little Sisters of the Poor, 2209 Hebert Street.
Children's Hospital, Jefferson Av. and Adams St.
St. John's Hospital, Annex, Lucas Place and 23d St.
St. Luke's Hospital, Washington Avenue snd 19th St.
U. S. Marine Hospital, Marine Avenue and Main St.
Alexian Brothers Hospital, S. Broadway and Osage Street.
Augusta Hospital, (Children), Channing Avenue and School Street.
Evangelical Lutheran, Corner Potomac Street and Ohio Avenue.
Missouri Pacific Railroad Hospital, Lafayette Av. and 28th Street.
St. Louis Mullanphy Hospital, Grand Avenue and Montgomery Street.

Memorial Home, Grand Avenue.
Old Ladies Home, South St. Louis.
Protestant Orphans Home, Webster.
German Orphans Home, Natural Bridge Road.
Baptists Orphans Home, 1906 Lafayette Avenue.
St. Ann's Orphans Institution, 10th and O'Fallon Sts.
Episcopal Orphans Home, Grand and Lafayette Avs.
Methodists Orphans Home, Laclede Av. near Grand.
Young Woman's Christian Home, Washington Av. and 19th Street.

PUBLISHERS' NOTICES.

Medical Books.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

Taylor's Atlas of Venereal and Skin Diseases 1-2 Mor. Published by Lea Bros. & Co. 1889. List price, $28.00.

Cyclopædia of Obstetrics and Gynæcology, 12 Volumes (Complete), Cloth binding. Published by Wm. Wood & Co. 1889. List price, $25.00.

Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Trousseaus' Clinical Medicine in Two Volumes. Published by P. Blakiston, Son & Co. 1882. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather binding. Published by Birmingham & Co. 1882. List price, $5.00.

Harley, Disease of the Liver, Leather binding. Published by P. Blakiston, Son & Co. 1883. List price, $4.00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

J. H. Chambers & Co.,
914 Locust Street, St. Louis, Mo.

G. W. Flavell & Bro., 248 North Eighth street, Philadelphia, manufacture to order, according to directions explicitly given, Elastic Stockings, Leggings, Anklets, etc. The great comfort which they afford in cases required cannot be expressed.

William Snowden, Manufacturer and Importer of Surgical Instruments, No. 7 South Eleventh street, Philadelphia, makes a specialty of Antiseptic Drainage Tubes and Raw Cat-gut in coils, which Prof. Gross, at one of his clinics, stated were superior to all others.

Queen & Co.—It is a procedure almost of a mere formality to call the attention of those who desire the appliances of the Optician, for their house so long established, so well and favorably known, can scarcely need or receive any aid by our commendation. Any articles desired from the most elaborate microscope to the simple spectacle can be obtained by mail. Address Queen & Co., 924 Chestnut street, Philadelphia.

Baltimore & Ohio R. R.—Mr. George M. Taylor, city passenger agent of the Baltimore & Ohio R. R., is distributing among the delegates to the meeting of the American Medical Association at Washington, a handsomely illustrated pamphlet, "Guide to Washington." It is presented with the compliments of the Baltimore & Ohio R. R. Mr. Taylor does not neglect to add, when delivering the souvenier, that the vestibuled limited train, from St. Louis to Washington, is exceedingly popular with the traveling public.

Charles Leutz & Sons, 18 N. Eleventh street, Philadelphia, Manufacturers of Surgical Instruments. This house is well supplied with all instruments that enter into the panoply of the progressive surgeon, including microscopes and down to the finest needle. Send for special list of new instruments.

The Whole Train Goes Through.—The Hot Springs train leaving St. Louis Union Depot via Iron Mountain at 8:20 p. m., is now running through solid to Hot Springs, Ark., including baggage car, coaches and sleepers, without change of any class. Ticket offices, 102 N. Fourth street and Union Depot.

Otto Fleming, 1009 Arch St., Philadelphia, dealer in Electric Batteries, both portable and stationery, Cautery, etc., with both Faradic and Galvanic currents. Those who know what a powerful adjuvant this agent can render, cannot, in these days of progression in medical science, afford to be without it.

Vogeler, Son & Co., Chemists, carry a full line of Dukehart's Extract of Malt, in combination with other ingredients of a tonic and constructive nature. These, manufactured by skilled workmen and with the most approved apparatus, cannot fail to give satisfaction to all who prescribe them. Vogeler, Son & Co., Baltimore, Md.

The Atmospheric Tractor.—This novel instrument has recently been added to the armamentarium of the accoucheur. From the facility of its application, exemption from the danger which is incurred by the forceps, doubtless, too much is not claimed for it in safely promoting delivery, and saving to the doctor, hours of delay and anxiety. The Atmospheric Tractor Co., 607 Chestnut street, Philadelphia.

W. H. Schieffelin & Co., New York.—We have recently received, at the hands of R. B. Anderson, agent, a specimen of Peter Moller's Pure Cod Liver Oil, of which the above named house is the sole agent in the United States. The laboratory of P. Moller has been in existence for nearly thirty years, and the superiority of the product is manifest in its physical appearances; being void of many qualities, which, carelessness of manufacture, has often imparted and rendered it offensive, distasteful and unpopular. In recognition of the zeal and integrity of Mr. Moller, the King of Norway has conferred upon him orders of distinction, and the appreciation of his Cod Liver Oil is manifest by the possession of fourteen prize medals which, since 1862, have been awarded to him by exhibitions, international and national. This oil with the greatest confidence is commended to all who may need this valuable therapeutic agent. The reputation of the house of W. H. Schieffelin & Co., 170 and 172 William street, New York, needs no recommendation at our hands. Their preparations throughout the entire list, for purity of material, excellance and elegance of manufacture, leave nothing to be desired.

ORIGINAL COMMUNICATIONS.

AN ADDRESS

DELIVERED AT THE FORTY NINTH ANNUAL COMMENCEMENT OF THE ST. LOUIS MEDICAL COLLEGE.

BY GEO. HOMAN, M.D., ST. LOUIS.

LADIES AND GENTLEMEN, MR. DEAN, AND MEMBERS OF THE GRADUATING CLASS.—In the course of the remarks I shall have the honor to make before you this evening, the question that has, of late years, profoundly stirred the medical profession of this State, and of the country at large as well, namely, as to the manner and time and methods of study and education that prevail in the work of fitting the medical student to receive his degree, will not be considered, that subject having already been fully discussed from this platform by those better fitted for the work than is the speaker of the present occasion.

But what I shall venture to submit to your indulgent judgment relates rather to the after education of the physician, to his awaking to a perception of his civil or fundamental rights as a factor of society in the State; and this should appeal as strongly to those who have just received their degrees as to those veterans and leaders who count their decades of toilsome effort and honorable achievement in the service of that profession which, looking backward not to revelation or precedent and less and less to tradition or mere authority, but heeding more and more the light and teaching of scientific quest and determination, lays just claim by its fruits in the vastness of its practical, humane, and beneficent services to mankind, to be the highest calling in which the hand and heart and brain of man can jointly engage.

If he, who makes two blades of grass grow, where but one was found before, be counted a public benefactor, what shall be said of those whose labors have made the assurance of life and health to their fellow men more sure; who are saving to nations that which in the last economic analysis alone is valuable—their vital capital, the fund of productive energy constituted by more healthful peoples whose span of life counted by generations has been visibly lengthened by the increased powers and successes of preventive and curative medicine?

It is, perhaps, due to the fact of their attention and energy being often largely bent to other than merely personal ends, and by their being nobly compelled by their calling to take on semi-public functions in their several communities, that physicians have, as a rule, been negligent of their civil rights, or the right of self-government as a profession in their relation to the State. Medical men at all times and in all places are looked to as advisers in time of public danger from disease, and constitute the staff upon which the people lean when pestilence appears; but, notwithstanding this, it is not until civil development has reached, in the main, a somewhat advanced stage that the right of the profession to regulate itself has been conceded—in many instances, perhaps, because it has never been demanded as an inherent and undoubted right.

This is the present situation in this State, the right of medical self-government in matters and concerns purely professional having never, so far as I can learn, been distinctly asserted, or the principles of its proper exercise clearly laid down. The consequence has been that the thought of the profession at large has not been given to the question, and no united and unmistakeable demand has been made upon the legislative power for a recognition of this fundamental right under our form of government.

That there is need that this shall be done, and without unnecessary delay, will, I think, not be denied by any intelligent physician who carefully considers the present situation, who discerns the drift of modern thought, who values medical independence and a condition of the profession unfettered by any external ascendency, and freed from any outside influence calculated to constrain the will, or muffle or pervert the voice of the profession.

Time would not permit me to particularize, nor if it did have I any well-matured plan to offer now whereby this injustice to our calling may be righted; let it suffice for the present that the matter is brought to the attention of medical men as one meriting their earnest thought, and in the hope that it will receive consideration that will show forth in fruits; for, as we owe fealty both to the State and our profession, let us be jealous that our rights as physicians shall not be encroached upon, either designedly or inadvertently, by the former.

Loyal allegiance, as a citizen, to the authority of the State should stop no physician from unequivocally asserting the right of medical men to solely control and determine within the lines of their profession what its policy and standards and requirements should be, and the political power of no state should be permitted to enter there to prescribe or influence, in part or whole, aught of their government as a professional body.

For the best good of both the severance should be absolute and final, and with the hope that the course of coming events may bring to pass such a consummation, I commend the matter to the thoughtful consideration of those present on this occasion.

To the members of the graduating class I would say on behalf of the St. Louis Medical College, Hail and Goodspeed!

Asking you to put aside for the moment all the merely sentimental feelings that naturally arise from a lengthened period of study pursued in one chosen institution, I may say that for considerations satisfactory to both parties in a business sense, you have successfully completed the allotted course and now hold the evidences of it in your hands. Those parchments may or may not prove valuable to you; a diploma is neither a

talisman or a fetich, so your future will depend largely upon how you use yourselves, and this is especially true now that there is such general shrinkage in the value placed upon all diplomas. As yours have been well-earned the best wishes of the School will go with you in the confident expectation that you will make a wise use of the faculties and powers with which you are endowed, and of the professional equipment you have received, in the careers upon which you are entering. These good wishes will attend you, not unmingled with a tinge of selfishness on our part, for the hope will be cherished that while worthy ambitions may be realized and eminent distinction achieved by the members of this class for their own sakes, that still some rays of such glory worthily won may gild the College spires and confer some lustre on the names of those who have guided for a time and fashioned to some extent your thoughts and views in an important formative period of your intellectual life.

On the other hand, how shall you henceforth regard the College whose degree you have received? I would say deal with impartial justness always, and kindly and considerately if you can. So long as the School is found by you to be conducted with an eye to no mere selfish or mercenary ends, but solely with a view to imparting the best instruction possible under the circumstances, we shall rightly claim your active and sympathetic support. But whenever you may find that this high standard has been departed from, let your censure be not less swift and pronounced.

In conclusion, the mightiest victories of to-day are won on many a noiseless field where thoughts are marshaled as armies—the victories of peace and science and truth—and on these fields may each of you signally acquit himself with well-earned glory and distinction, and to the lasting honor of the institution which, not formally but affectionately, now bids each of you a cordial hearty farewell.

A RESUME OF THE SHURLEY—GIBB METHOD OF TREATING PHTHISIS, WITH A REPORT OF CASES.

BY O. PRESCOTT BENNETT, M.D., CHICAGO, ILL.

Professor of Anatomy, American College of Dental Surgery.

When Drs. Shurley and Gibb reported the great benefit their patients, suffering from phthisis, had received from subcutaneous injections of solutions of chloride of gold and soda and of iodine, with inhalations of chlorine gas, I decided to try their mode of treatment on some of my own patients.

I commenced by giving hypodermic injections of the solution of iodine, equal to $^1/_{20}$ of a grain, which was gradually increased to $^1/_6$ of a grain. These injections were given daily for a week or ten days, except when symptoms of iodism, disturbances of the alimentary canal, or loss of strength were manifested, when I changed to the chloride of gold and soda solution, which was also gradually increased from $^1/_{24}$ to $^1/_8$ of a grain. These solutions should be chemically pure and thus avoid abscess.

During the next ten days I aimed to alternate the injections of iodine with those of the chloride of gold and soda, but varied from this rule as each case appeared to indicate. From this on, I continued giving the injections, every second, third or fourth day, according to the advancement of the case, preferably using the iodine unless it was contra-indicated. I have found the injections caused less pain and discomfort when injected in the lower gluteal region than when given in any other part of the body.

The inhalations were given in the following manner: A Davidson spray tube, No. 66, is filled with a mixture containing one-half drachm of chlorine water, U. S. P., to the ounce of 6% solution of chloride of sodium, which renders the chlorine less irritating. The rubber tip of this spray tube is put in a hole in the side of a large bottle, capable of holding two or three quarts, upon the mouth of which is fitted a rubber face cap, such as used by dentists for their nitrous oxide inhalers. The bottle is placed in a box, which is suspended from the ceiling, and can be raised or lowered to suit the height of each patient. The spray tube is connected with the compressed air of about thirty pounds pressure, which forces the liquid in the tube as a spray against the side of the bottle, and breaks it into a fine vapor. The patient is directed to apply rubber face cap over mouth and nose, and inhale the vapor, which is formed in the bottle. The inhalation is continued ten or fifteen minutes at each sitting, and given every day.

The amount of chlorine water to the ounce can be increased, unless it should prove too irritating to the patient.

The following is a report of four cases treated by this method:

December 26, Mrs. D. A. E., æt. 29, called at the office, complaining of loss of strength and weight, some dyspnœa, a severe cough with free expectoration of thick yellowish material, had some fever, which is higher at night. At this time she had a temperature, 100.2° F., and pulse, 128 beats per minute.

Physical examination showed a large cavity in upper part of left lung, decided dulness as low as seventh rib, with slight dulness as low as diaphragm, broncho cavernous respiration at upper part, and sub-crepitant rales over lower part of same lung.

Diagnosis, phthisis.

As her husband was desirous of having her receive injections of Koch lymph, or of the solution of chloride of gold and soda and iodine, I recommended the latter, knowing that to be the less dangerous of the two. I did not expect to cure the patient, and would not have been surprised if the treatment had only hastened her death.

She received the same treatment as that recommended in the fore part of this article. At first improvement

seemed doubtful, but at the end of two weeks all symptoms were better except shortness of breath. There were fewer sub-crepitant rales, and breathing less harsh than when first examined.

At the present time she is feeling stronger, has gained some flesh, her appetite is fair, cough is better and there is less expectoration. The patient has certainly derived a great deal of benefit from this treatment, although as the disease is so far advanced, I do not know how the case may terminate. She is now able to make the journey from her home in Englewood, to the corner of State and Randolph Streets, with comparative ease.

I report this case to show how much benefit some patients in the advanced stages of phthisis have received from this mode of treatment.

Case II.—Miss H. M., æt. 27, has had a hard cold for three months, with darting pain in left lung. Has been troubled with a severe cough, with expectoration of thick mucous which showed presence of a few bacilli on examination. During this period has had several chills which were followed by fever. Appetite is poor, some anæmia; pulse, 85 per minute, and temperature, 99.2° F. Hæmoptysis a month ago. Physical signs showed dulness over right apex, as low as third rib, with harsh respiration, but no rales.

Diagnosis, incipient phthisis. This was the diagnosis of Dr. E. Fletcher Ingalls, also, who saw the case at the same time.

She has now been under this treatment for about twelve weeks, with improvement dating from the first injection. Once or twice she has reported feeling poorly, her cough having troubled her more, and the bowels were too loose for a few days. The former trouble was due to a fresh cold she had taken, and the latter to the too long use of the iodine solution. At the present time she is stronger, sleeps well, coughs very little, with very little expectoration. The physical signs are much better, there being only a slight dulness. No bacilli were found in the sputa the last two examinations.

I called Dr. Ingalls' attention to the case again a few days ago, and he agreed with me in the opinion that the slight dulness remaining would gradually disappear, leaving no abnormal condition which could be detected.

Case No. 3.—January 1, I was called to N. M. C. (an Italian), æt. 21, who complained of severe cough, with expectoration of muco-purulent material, which showed a great number of bacilli on examination by microscope. Has had four attacks of hæmoptysis in twelve months, raising from four to eight ounces of blood at each time. His appetite was poor, and he has lost sixteen pounds in twelve months. Has night sweats frequently. Temperature, 99° F.; pulse, 114 per minute. Physical signs showed dulness over right apex in from as low as second interspace, over left apex as low as fourth rib, below which dulness increased. Respiration harsh all over upper part of both lungs. Respiration feeble and sub crepitant rales numerous over lower part of left lung.

Diagnosis, phthisis.

As this was one of my first patients treated by this method I gave him daily injections of about $^1/_6$ of a grain of iodine. At first he began to improve, but at the end of ten days rapidly lost strength, and at the end of the third week he was so weak that it was decided to discontinue all injections; the physical signs at this time, however, showed improvement in the condition of the lungs.

Three weeks later I was called to see him again; he had gained six pounds and was much stronger; physical signs showed about the same condition as when examined last. He was now given injections of the chloride of gold and soda solution twice a week.

Now, he is feeling some stronger, and says he is going to work at street cleaning next month. A few bacilli were still found in examination of sputa at this time.

I report this case to show how very depressing the effect of the iodine is, when given in too large doses, or for too long a time, and that loss of strength should be one of the first indications for the changing from the iodine to the gold solution.

Case No. 4. Miss R., æt. 16, complained of severe cough, some dyspnœa, loss of strength, appetite poor; she expectorated a good amount of muco-purulent matter, which showed absence of bacilli on microscopical examination. Pulse and temperature about normal.

Physical examination showed harsh respiratory sound which was partially masked by large and small mucous rales all over right lung.

Diagnosis, chronic bronchitis.

She was given maltine with phosphate of iron, quinine and strychnia, with injections of iodine, varying from $^1/_{20}$ to $^1/_6$ of a grain twice a week. There was a gradual improvement of the cough and expectoration, strength increased, and the patient seemed better in every way. The last time I saw her the physical signs were much better, and I have no doubt the case will terminate in complete recovery in a very short time.

After having watched carefully for about twelve weeks the treatment of between forty and fifty cases by this method, I now believe it to be of great benefit in a certain number of cases of phthisis, while in some it proves of no benefit whatever, and in others, if continued I am afraid it only hastens their death. But I have failed to see a single case of incipient phthisis so far, which has not been benefited by this mode of treatment.

Certain other diseases of the lungs and bronchial tubes besides phthisis, I believe, will be greatly benefited by this mode of treatment, especially the injection of iodine.

You will observe that I do not claim it to be of benefit in all cases of phthisis, but what I do claim for it is, that when associated with proper medicinal and hygienic treatment, it will be able to save many of those who are now constantly suffering from this dreaded disease.

WEEKLY MEDICAL REVIEW.

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TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this Review, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings, carefully prepared in ink, accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the St. Louis Weekly Medical Review, 520 Olive Street.

All letters containing business communications or refering to the publication, subscription, or advertising department of this Review, should be addressed to The Medical Review Association, 914 Locust Street, St. Louis.

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SATURDAY, APRIL 4, 1891.

Russian Physicians.

(J. Robinovitch, *Le Progress Medical*). The total number of physicians in all Russia on July 1, 1890, was 12,112 men and 409 women. Of this number 21% are military physicians and 79% are engaged in civil service. The civil physicians consists of many different classes, *e. g.*, professors, fellows, protectors and other physicians connected with the corps of instruction of the universities, 1.94%. Medical inspectors with their assistants: Physicians of the provinces and districts, 5.55%; physicians practising freely in the country, 2.04%; physicians attached to the Zemstwo, 14.29%; physicians in charge of sanitation in the cities, 4.56%; physicians of hospitals and asylums, 10.39%; physicians of schools and lyceums, 2.19%; physicians of manufactories and shops, 2.32%; physicians practising freely in cities, 23.34%; physicians not engaged in their profession, 2 43%. Considered as a whole, to every 100,000 inhabitants in Russia there are 8.4 physicians; in European Russia the number is a little greater, 9.2, excluding those physicians who live in the large cities (such as St. Petersburg, Riga, Warsaw, Moscow, Dorpat, Cracow, Kief, Kazan and Odessa). European Russia has only 6.5 physicians to 100,000 inhabitants; Caucasus and Siberia have only 3.8 to the same number. In the large centers indicated above, one-third of all the civil physicians of Russia live. If we consider the manner of distribution of the physicians according to sections, it is established that the provincial cities are better supplied with physicians than those which are near the western boundary. The "free" physicians locate principally in the government cities which are not embraced in the department of Zemstwo. Three cities are especially noted for the great number of "free" physicians; these are St. Petersburg, Moscow and Odessa. Among the physicians (male) 22% are specialists; surgeons, 3.6%; accoucheurs and gynæcologists, 7.9%; oculists, 2%; therapeutists, 10%; alienists and neuro-pathologists, 3%; syphilis doctors, 3.1%. Nearly one-half are to be found in the university cities. A fourth part of the physicians (female) live in St. Petersburg, Moscow and Odessa; most of the others, in Zemstwo. These confine themselves almost exclusively to the treatment of internal diseases, gynæcology and pediatrics. More than half of the physicians are of the Sclav race—54.33%; the Polish represent one-seventh, the Jewish, one-eighth, and the Germans one-third. The Polish physicians generally establish themselves in the western provinces, where they constitute almost 51.8% of the entire civil medical corps. The German physicians occupy principally the Baltic provinces; they constitute 75.3% of the total number of physicians. The Jewish physicians are scattered throughout the same provinces as the Polish, and also in the southern part of Russia. In the entire number, there are some Armenians (1.09%), who practise mostly in the Caucasus. The average age of the men at the completion of their medical study is 25.9; that of the women is 26.8. The oldest Russian physician is 88 years old, and the youngest 23; the oldest female physician is 57 years.

The physicians (men) group themselves thus, according to their age: From 24 to 30 years, 17.8%; from 30 to 40 years, 43.7%; from 40 to 50 years, 17.4%; from 50 to 60 years, 14.7%; from 60 to 70 years, 4.4%; those above 70 years, 1.8%.

For the physicians (female) from 24 to 30 years, 24.1%; from 31 to 40 years, 69%; from 41 to 50 years, 6.8%, and from 51 to 60 years, 0.2%. More than two-thirds of all the Russian physicians are married, and nearly one-twenty-fifth are unmarried. In this respect, here are the figures a little more exact: The civil "free" physicians are married in the proportion of 62%; the physicians of Zemstwo in the ratio of 65.2%; and the military physicians, 65.8%.

Of those who are married, only 63.8% have children; the great majority of fathers of families have only one child. Four per cent, however, have more than six

children, and one per cent has thirteen children. Of the total number of Russian physicians only 615 male and 31 female have real estate, consisting of land, houses, etc.; the same as stocks in money. The salary of physicians holding some official positions varies from 200 to 7000 roubles ($125 to $4,350). The greater number, 53%, receive from 900 to 1500 roubles; 2% only receive more than 3000 roubles. Again, of the total number of physicians connected with official service, it is observed there are 8.4% who hold two, three and even four positions. It is among the grade of medical inspectors and their assistants, it is observed, that the greatest number of duplicated offices occurs; then follow the rank of physicians of districts, that of physicians of the schools, physicians of Zemstwo, professors of universities, etc.

Of the physicians "free," the average amount of income at St. Petersburg is 2,200 roubles a year; at Moscow, 1,700; at Warsaw, 1,500; at Odessa, 3,600. The average age of the Russian physician at death is 57 years. The causes of death are the following: Contagious diseases (comprising tuberculous), 42.3%; diseases of the respiratory organs, 9%; cardiac and vascular affections, 6.5%; affections of the digestive organs, 7.3%; diseases of the nervous system, 14.6%; malignant tumors, 5.7%; Senile cachexia, 4%; suicide, 3.2%.

Medical Legislation and Medical Schools.

Thirty-five States have State Boards of Health, having an active eminently useful existence; or statutory merely a little above a defunct condition, according to the average intelligence of the legislators. Of this latter is poor old Missouri. In an artificial paroxysm of public spirit it enacted a State Board of Health in 1883, and because it failed in its achievements to satisfy the extravagant expectations of our law-makers, it did not humanely abolish it by the guillotine, but continued to give it a name to live while it was suffering it to prolong a lingering existence by inanition. The example of Illinois had no influence in exciting to imitation; though its accomplishments had been great, palpable and demonstrable, they had no effect upon the obtuse intellects of our modern Solons. Petitions availed nothing based upon reliable statistics, the average legislator could not rise to the appreciation of the fact that the Board was for promoting and securing the health and well being of the State and not for the mercenary advantage of the profession which is the custodian of the public health, or pecuniary profit of the members of the Board, only one of whom upon whom devolved the labor received any pecuniary endowment. When will the State awake from her lifeless inertia and abreast with her neighbors advance to its legitimate fields of public labor and public benefit.

Arkansas established County Boards of Examiners, and an applicant passing any County Board, however careless and indifferent, it may be to the interests and welfare of the people, is granted the license or privilege of exercising or rather practicing in any other county in the State.

In Illinois, when the act regulating the practice of medicine went into effect there were in the State engaged in the practice of medicine 7,400 persons—of these 3,600 were graduates from some medical college, while 3,800 were non-graduates. In other words, the graduates constituted only 48%, less than 50%, of all engaged in practice. On Jan. 15, 1890, the percentage of non graduates to the whole number was only 9—the number being reduced from 3,800 to 575. The total number of physicians in the State is less now than it was 12 years ago, notwithstanding the large increase of its population.

In Iowa the medical practice act permits its State Board to issue certificates to those who have passed satisfactory examination before other State Boards.

Kentucky prohibits traveling empirics from registering or practicing at any place in the State.

New Jersey has created a Board of nine members, appointed by the Governor for three years, consisting of five old school, three homœopath and one eclectic, and no member of any college or university having a medical department shall be a member of said board; this to apply to those beginning the practice. Examinations to be in writing and both scientific and practical, but of sufficient severity to test the candidate's fitness to practice medicine and surgery. If the applicant intends homœopathy or eclectricism, the member or members of the Board of those schools shall examine said applicant in materia medica and therapeutics. An examination satisfactory to all the members of the Board is indispensable. The Board may by a unanimous vote refuse to grant a license, for chronic and persistent inebriety, practice of criminal abortion, conviction of crime involving moral turpitude and others.

New York requires a preliminary education, a definite standard for examination, a separation of teaching from the licensing power and a three years' college course.

Medical Schools of the Ottoman Empire.

Le Bulletin Medical: There are five Schools of Medicine in the Ottoman empire (embracing Egypt): One at Constantinople, one at Cairo (Egypt), one at Aintab (Syria) and two at Beyroot (Syria). The two first only have the authority to confer medical diplomas. The three others were established by missionaries, and confer only certificates of study; their students must pass their examination in medicine at Constantinople. Yet the diplomas conferred at Cairo are not valid throughout Egypt, and in order to practice in the rest of the Ottoman empire, it is necessary to undergo a new examination at Constantinople.

The faculty of the school established at Constantinople in 1833 consists actually of 20 professors. It has sent forth about 1,400 physicians. The term of study there is six years.

The University at Cairo was organized in 1827 by Clot-Bey; the period of study there is seven years; they confer each year about twenty diplomas. The lectures are delivered chiefly in French, but in Arabic when all the professors are native. To the University are annexed two hospitals, laboratories and museums. The examinations are held in the presence of the assembled professors, supervised by four physicians designated by the government.

Of the schools of the missions, the oldest is the Protestant University at Beyroot, which has existed for twenty-two years and has educated 105 physicians. The number of professors is six and the term of study four years. The Catholic University of this city was founded there some years since by the Jesuits; its professors are French.

St. Louis Medical Society.

It is with unfeigned pleasure that we are able to note constantly increasing interest in the meetings of the St. Louis Medical Society. The subjects before it during the present sessions are receiving deliberate, intelligent consideration.

The President, Dr. Bremer, manifests the greatest interest in the discussion of every scientific topic; usually occupying a position on the lower platform, where he remains, standing, often times, during the progress of the entire evening's deliberations, intently occupied with the drift of the discussions.

MEDICAL ITEMS.

Brain Weight.—The brain weight of Scotch, 50 ounces; English, 48 ounces; German, $48^{3}/_{10}$ ounces; French, $47^{8}/_{10}$ ounces.

Uniform Medical Law.—The establishment of a uniform medical law in all the states would be a great benefit, but this consummation, however desirable, is too much to expect at present.

Surgical Treatment of Cancer of the Liver.—Cancer of the liver, usually considered a perfectly hopeless disease, has been treated successfully by Terillon, who removed a cancerous mass from the left lobe.

Gunpowder Stains of the Face.—Gunpowder stains of the face may be removed by painting with biniodide of ammonium, distilled water, equal parts; then with dilute hydrochloric acid, to reach the tissues more deeply affected.—*Revue de Therapeutique.*

Some Curiosities of Science.—The important fact is established that the electrical resistance of a mummy is 6,000,000 ohms. The cranial temperature of the citizens of Colorado is 1° F. higher than that of their less favored eastern brethren. The human race annually absorbs three million pounds of nicotin, one drop of which will kill a cat. A Birmingham gentleman carried a pea in his right ear for five years and seven months, when it was successfully removed by a general practitioner.

Doctors in the United States Senate.—The statement is made that Dr. J. H. Gallinger, of New Hampshire, is the first physician who has ever been elected to the United States Senate. This is a mistake. Maryland, Florida, and we believe other States, have elected medical men to the Senate.

American Academy of Medicine.—The 16th annual meeting of the American Academy of Medicine, will be held at Washington, D.C., May 2 and 4, opening at 3 P.M., May 2. As it is just previous to the meeting of the American Medical Association, members will be enabled to attend both sessions.

Cold in the Head.—For cold in the head, while in the acute congestive stage, there is no better remedy than gelseminum. One good large dose, say 10 minims of the fluid extract, taken upon going to bed, will effectually dispose of this troublesome and uncomfortable affection. One dose is usually sufficient.—*Medical Compend.*

France has one physician to every 3,000 people; Germany, one to 1,500, or twice as many; the United States one to 600, five times as many as France; and California, that boasts of her climate and the good health of her people, one to 500, or six times as many as France. One year since Los Angeles had one physician to 301 of her people.

The Three Year Course.—A new era is dawning upon the history of medicine in the United States. Increased requirements have just been announced. Nine of the different States now require an attendance upon three complete courses of lectures and graduation, to entitle the candidate to practice medicine in their limit; and five of these are Southern States. All praise be to them! Other States are initiating measures for the accomplishment of the same end.

To Stop Nose Bleed.—Dr. W. T. Lusk, of Bellevue, told the class the other day that about twenty years ago he was in the office of a country practitioner when a man came in with the nose bleed. Instead of being greatly disconcerted or excited about the matter, and hurrying about to find means with which to plug the posterior nares, he quietly walked over to a desk, took out a clothes pin, pushed it down over the cartilaginous part of the man's nose, and went about his other duties. After, perhaps, ten minutes, the clothes-pin was removed and the epistaxis did not return. Dr. Lusk stated that this might not seem a very artistic or scientific procedure, but he had been looking for a case the

past twenty years in which it would not succeed in checking the nasal hæmorrhage. Moreover, it was by no means as uncomfortable as the use of a coagulating salt or a posterior plug. The fingers would answer as well as a clothes pin, but the nose should be grasped from above downward, not simply clasp the alæ between the thumb and finger.—*Practice.*

Increase of Physicians.—The medical profession receives annually about 4,000 recruits to its ranks—more than twice the number requisite to supply all vacancies occurring from deaths, abandonment of the profession and other motives. The multiplication of medical schools, increased facilities by proximity to their homes, and smallness of the fees exacted, hopelessly deplete the farm and workshop and other pursuits worthy of their highest abilities—the more appropriate destination of many. But where is the restraining hand? Pluto, with apprehension and dismay, saw the might of Æsculapius exerted in bringing back the dead from his regions to life, lest his dominion should become depopulated.

In this free country of ours the only desirable and practicable mode of diminishing this Niagara exodus from our medical colleges is to require on their part a higher degree of preliminary education, and a higher degree of attainment and excellence in medical knowledge as the sole pre-requisite for graduation; and that the power of license be vested in a Board distinct from Faculties of Instruction, securing uniformity and impartiality of requirement.

CORRESPONDENCE.

FIRST ANNUAL REPORT OF THE NEW YORK PASTEUR INSTITUTE.

New York, March 23, 1891.

Editor Review.—Dr. Paul Gibier, Director of the New York Pasteur Institute, begs to inform you of the results of the preventive inoculations against hydrophobia performed at this Institute during the first year of its existence (February 18, 1890, to February 18, 1891), 828 persons having been bitten by dogs or cats, came to be treated. These patients may be divided in two categories:

1. In 643 of these persons it was demonstrated that the animals which attacked them were not mad. Consequently the patients were sent back after having their wounds attended, during the proper length of time, when it was necessary.

2. In 185 cases the anti-hydrophobic treatment was applied, hydrophobia of the animals which inflicted bites having been evidenced clinically, or by the inoculation in the laboratory, and in many cases by the death of some other persons or animals bitten by the same dog. No death caused by hydrophobia has been reported among the persons inoculated.

Indigents have been treated free of charge.

The persons treated were:

From New York, 81; New Jersey, 27; Massachusetts, 16; Connecticut, 11; Illinois, 9; Georgia, 5; North Carolina, 5; Pennsylvania, 5; Maryland, 3; Missouri, 3; New Hampshire, 2; Texas, 2; Kentucky, 2; Ohio, 2; Maine, 1; Arizona, 1; Minnesota, 1; Iowa, 1; South Carolina, 1; Nebraska, 1; Rhode Island, 1; Arkansas, 1; Virginia, 1; Louisiana, 1; Indian Territory, 1; Ontario (Can.,) 1.

With kindest regards of the Pasteur Institute,

Paul Gibier, Director.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, March 21, 1891, the President, L. Bremer, M.D., in the chair.

Mortal Remains of an Impacted Vaginal Speculum.

Dr. W. B. Dorsett presented a specimen, neither pathological nor anatomical; might be termed archæological remains of what was once a soft rubber air pessary; of all kinds of this instrument the soft rubber ring or air pessary would usually be regarded as the most harmless. This one was introduced one month ago for the purpose of sustaining the uterus, and the patient had almost become oblivious of its presence. She was admitted to the hospital, having fever, a very offensive discharge from the vagina, and a great deal of pain; and being a woman past 50, she was supposed to be affected with cancer of the uterus. Being placed upon the table for examination, and a syringe used for the purpose of washing out the vagina, this pessary was exhumed. It had become so hard that it was necessary to break it in pieces before it could be removed. Its presence had excoriated the vagina, in several places causing long fissures and deep lacerations; from which the woman became affected with septicæmia. This is the second case of the kind the speaker had seen; the pessary when originally introduced was perfectly soft and pliable; but, by the action of the vaginal secretions, it had become hard and inflexible.

Dr. Jacobson stated he had removed a pessary that had been placed in position about five months before, and the vaginal walls had closed over it, and there was a very offensive discharge in that case also.

General Sarcomatosis Originating From the Bones of the Ankle Joint, Involving Heart, Spleen, Supra-Renal Capsules, Etc.

Dr. Dalton presented the specimens and said: The case was that of H. H., colored, æt. 46, single, admitted to the hospital November 24, 1890. He had always been in good health, but his hygienic surroundings had been quite poor; and he has been addicted to the use of liquors. Five months before admission to the hospital

he sprained his right ankle. The injury, however, was not sufficiently severe to prevent his working, for some time; but he has suffered a good deal in foot and ankle since. When admitted to the hospital these parts were three times their normal size. Just below the outer malleolus and anterior to it, a fluctuating tumor was noted as large as a hen's egg. Cardiac cystolic murmur, pronounced in character, was heard at the left nipple, which sound was transmitted toward the axilla. The other viscera seemed normal.

On December 25, an exploratory incision was made into right ankle. All the tarsal and metatarsal bones were found tuberculous, and caries was well advanced. The leg was amputated at the junction of the middle and lower thirds, and the stump healed kindly. Patient was around the hospital for some weeks, after which he steadily failed, and died on the 7th inst.

The post-mortem notes dictated by Dr. Bremer were as follows:

March 7. Autopsy four hours after death. Body had many enlarged glands. Pleura was firmly adherent on both sides, the left being enormously thickened and covered thickly with hard nodules. Both lungs contained several hard nodulous spots. On the right side there was what appeared to be a large blood clot attached to the lung.

The pericardium contained about three ounces of clear fluid. In the heart walls were many hard nodules about the size of a hazel-nut. On the mitral valves were a number of vegetations; a large nodule was found in the wall of the gall bladder. The spleen was attached to the liver, was twice the normal size, and presented an indurated mass. The mesenteric glands were greatly enlarged. The pancreas was filled with hard, nodular masses. Kidneys were both fatty; in the right was found a hard nodular mass, similar to those found in other places. Both supra-renal capsules were enormously enlarged, and very hard to the touch.

The indurated masses, found in the various organs, were microscopically examined by Dr. Bremer, and pronounced sarcomatous.

Dr. Bremer said he had made a microscopical examination of the specimen, and found the tumor to be a sarcoma; having many shaped cells, but the spindle-cells predominating; a spindle-celled sarcoma, localized at first, but which afterward became generalized. The case was mistaken for one of tuberculosis—a pardonable mistake. In a case like this, however, where there is the slightest doubt, the diagnostic aid of the microscope ought always to be invoked. Had its real nature in the beginning been determined, no surgeon would have hesitated to resort to amputation, by which, perhaps, the patient's life might have been saved. There were tumors flattening the convolutions of the brain, and compressing the sulci, one of the left occiput of the size of a very large walnut, and the other of the right lobulus lingualis. Since there was a tumor involving the fibres of the left cuneus, an examination of the patient's eyes, probably, would have detected right homonymous hemianopsia, though he never complained of his vision, since a person may be hemianopsic without being aware of it, central vision being preserved. His mental dulness, due to the general softened condition of the brain, which must have existed long before death, prevented detection of his half vision.

Left Ventricular Cerebral Hæmorrhage, Complicated with Bright's Disease, Miliary Aneurisms and General Arterio Capillary Sclerosis.

Dr. Meisenbach presented specimen of brain and said.—The patient from whom this specimen was taken was 30 years old at the time of his death; married, the father of two children. There is a history of specific disease contracted before marriage, for which he was treated for a period of two years, and at the time of his marriage, about five years ago, considered himself cured. Though he enjoyed good general health, any slight ailment was always attributed to the previous specific disease, and his mind was never totally free from the thought of a possibility of a recurrence of his former trouble.

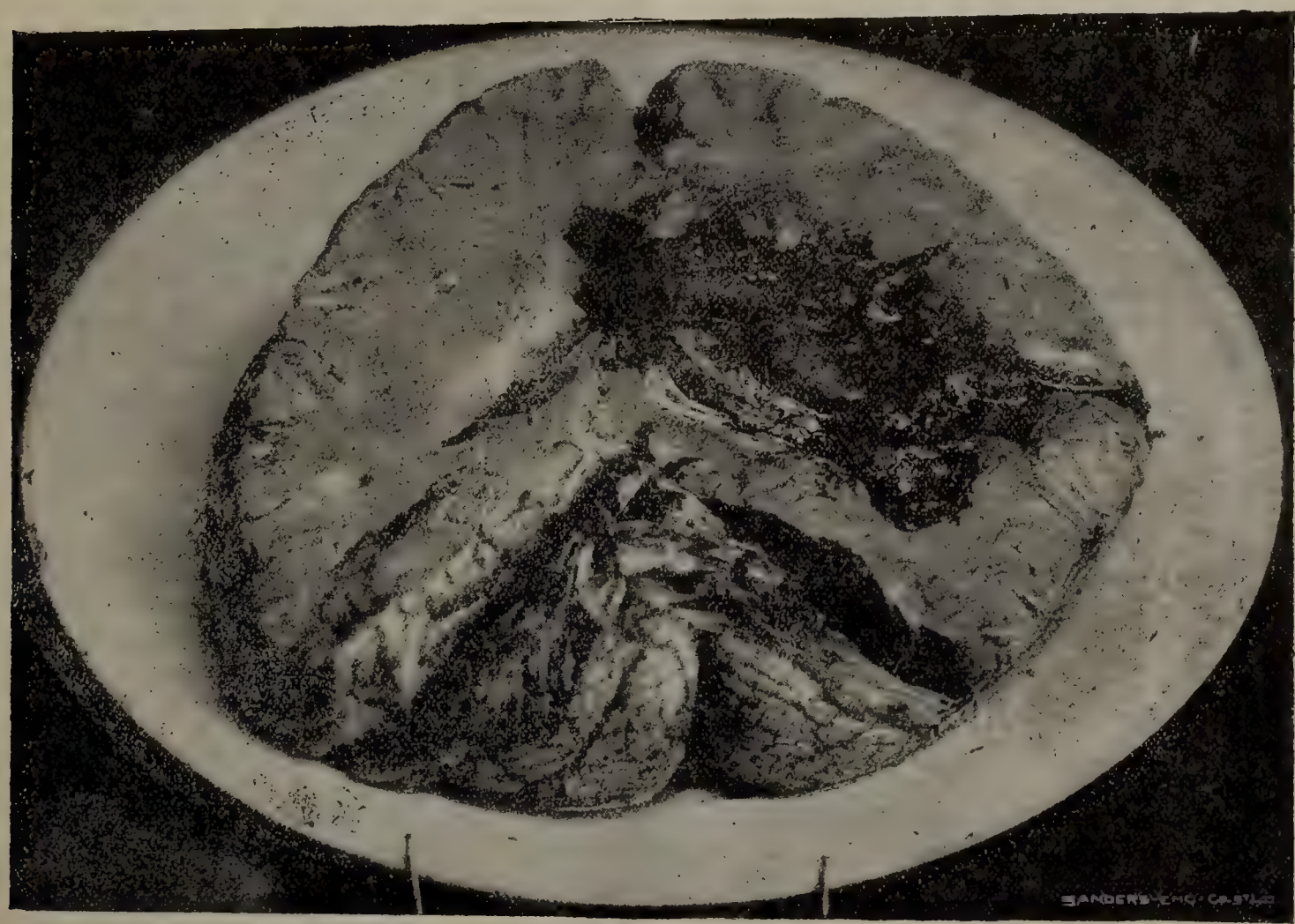
About four months ago he contracted a cold which did not yield to remedies. A cough persisted, with considerable expectoration, and constant irritation of the air passages; he lost weight, and became impressed with the idea that he was drifting into consumption. Repeated examinations of chest by specialists and others failed to detect any reason for this apprehension. Sputum also failed to reveal the tubercular bacilli.

About one month ago, he began to micturate very often during the night; his urine was examined and a specialist pronounced his malady to be Bright's disease. The urine revealed albumen and casts. Under the use of iron and ergot he improved, and his spirits became more buoyant. On the morning of the 15th the patient rose early, partook of a hearty breakfast, consisting of coffee, bread and butter and cake, and then went to his place of business, a few blocks distant from his residence. Being constipated, he had taken on the night before an aperient. Reaching his place of business, and feeling the desire to relieve himself, he went to the closet in the rear of the store. A noise in the closet attracted the attention of the clerks, who, rushing out, found him still conscious, but paretic. He was transported in a wagon to his home, and visited by the speaker two hours afterward. The patient had lost consciousness shortly after reaching home; his left side was paretic, the pupil of the right eye dilated, giving no reaction to light; the pupil of left was firmly contracted and without reaction; occasional spasmodic twitching of limbs was also manifest. No reaction from this condition occurred, and ten hours afterward he breathed his last.

Autopsy — hours after death. Reflection of the scalp revealed a contusion at the left occipital region, produced by striking his head in the closet; skull moderately thick; dura easily detached from calvaria. Re-

moved dura and brain intact; slitting up the dura along longitudinal sinus; the latter was full of blood; divided falx cerebri, and tentorium cerebelli, and reflected them. Considerable hæmorrhage followed upon removing tentorium cerebelli from transverse fissure, due to tearing of the arachnoid and pia in the transverse fissure; cerebral veins much injected. No evidence of hæmorrhage at base of brain; circle of Willis intact. A section horizontal and on a level with upper surface of corpus callosum was made; upon removing the roof of the lateral ventricles there was revealed an immense hæmorrhage into the right lateral ventricle, from the lenticulo striate artery, which Charcot very appropriately terms the "artery of cerebral hæmorrhage."

An autopsy, farther than that of the brain, was not permitted.



The speaker presented the specimen both on account of its intrinsic beauty, as of ventricular hæmorrhage, and by it to call attention to certain suggestions made as to treatment in such cases. Victor Horsely, in a resume of a paper read at Berlin, upon surgery of the brain, in the treatment of simple hæmorrhage or apoplexy, has laid down the following maxims, viz: "In the treatment of ordinary cases of hæmorrhage of the brain, we are at a loss to know what to do. The ordinary treatment is to let the patient alone, or to attempt to counteract the hæmorrhage which has taken place, by cold, position and, possibly, by bleeding; but, in the great majority of cases, these remedies fail or the patient dies, or the hæmorrhage goes on to such an extent, that if it does not kill the patient, it still leaves the results of hæmorrhage behind, namely hemiplegia." Mr. Horsely in a case which he described and published in the *British Med. Jour.*, March 2, 1890, has described a case which he treated by ligation of the common carotid artery, and thus controlled the excess of blood to the brain, not only by the common corotid itself, but from its branches; and he claims that in a very few seconds of time after ligation of the common carotid the hemorrhage can be checked. From an anatomical stand-point there is no question but that this is true, and perfectly feasible; but from a practical stand-point, as we meet these cases, the question comes up: When, how and at what time are we to operate, and how are we to select the eligible moment at which to perform this operation. This is one of the cases in which this question can be raised. Was there a time in the history of this case when the ligation of the common carotid could have been done? Could the amount of hæmorrhage which we see in this brain have been checked by a ligation of the common carotid artery at the proper time? Hæmorrhages from arteries, when they take place, are often spontaneous; and the amount of blood extravasated is in direct ratio to the size of the vessel; so that it always remains a question, how much hæmorrhage has taken place? If the operation be done at the proper time, the question arises, would the damage already inflicted be arrested at that stage? would the clot be absorbed? would the lacerated nerve fibre be restored or be regenerated, so as to leave the patient in the best possible condition?

Of course these are all important questions, and as the experience in this line has been very meagre, it is for the future to decide what the proper course of treatment will be. But certainly Mr. Horsely has sounded the key-note in the right direction, and in the future doubtless many of these cases, if taken in proper time, will be treated in that manner, and probably with life saving results. There is no question but that in the great majority of cases the lives of patients can be saved; and had this operation been done, it is possible, that the life of this patient might have been saved or prolonged.

Dr. Mulhall said.—This patient consulted me about three months ago, suffering with hæmoptysis, which had occasionally recurred during the six months previously. He then had slight cough, but no abnormal physical signs could be detected, antidotes being prescribed for the hæmoptysis, he was directed to get a thermometer, and take his temperature three times every day, and report the record. He did so, and it was ascertained that his temperature rose to 100° every afternoon and evening. Another examination of his chest gave negative results. Sputum containing blood was subjected to Dr. Bremer for examination. He found no tubercle bacilli. The patient admitted he had had syphilis six or seven years before. Deeming it possible that he had syphilitic disease of the blood vessels, iodide of potassium was prescribed in very large doses; this seemed to have but little effect on the hæmorrhage, though he admitted that he felt considerable better. On the third week a specimen of the urine was found on examination to contain a slight quantity of albumen. Another specimen was subjected to Dr. Burnett, who examined it chemically and microscopically, and discovered casts, hyaline and granular, epithelium, albumen and other evidences of nephritis. Cases of hæmoptysis had previously entered the Alxian Brothers Hospital with negative physical signs in the chest, but were found to be affected with chronic nephritis. The larger number of these patients have been brewers and brewer's assistants; men who drank large quantities of beer—30, 40 or 50 glasses a day; these habits of life inducing a state of degeneration, of the pulmonary artery, its terminal twigs and other arteries in the body, hæmoptysis resulted from their rupture. Dr. Burnett taking him under treatment, the speaker saw no more of him. Now the question arises was the Bright's disease the result of syphilis? did he have syphilitic degeneration of the kidney—of the arteries of the kidneys; or was the Bright's diseases independent of the syphilitic history? The patient passed blood in his semen, after sexual intercourse, as he had observed it on the sheets. These facts indicated a general arterial disease throughout his body; and the occurrence of the extravasation was the natural consequence of general arterial fibrosis or syphilitic disease. He was a young man, only 34 years old; his previous habits had been good, and there was no evidence of hypertrophy of the heart at the time.

Dr. Fry said his conservatism forbade him from anticipating great benefit from surgical interference in cerebral hæmorrhage. Cases of cerebral hæmorrhage, justifying ligation of the common carotid artery, must be few. Certainly not warrantable where there are evidences only of slight hæmorrhage. Most of these cases, if not all, indicate more or less disease of the general arterial system in which condition the arteries of the brain participate with the rest; and if the carotid of one side was ligated, and the blood tension reduced, the patient being predisposed to hæmorrhages, there would be a greater tension on the other side, and perhaps a rupture determined in other portions of the brain. In the great majority of cases, the damage effected is so great that there is no opportunity to benefit the patient with this sort of remedial aid. Since these cases generally occur in elderly people, this case is somewhat remarkable occurring in a young subject.

It has been proposed to penetrate the brain to the site of hæmorrhage and draw off the blood. To this mode the speaker had stronger objections. A vessel having burst into the ventricle of considerable size, the surrounding pressure would be the most certain means of limiting the amount of hæmorrhage. If the site of the hæmorrhage was tapped and the blood drawn off, that pressure would be removed. The formidable character of the operation is an intrinsic objection to its adoption.

Dr. Bremer said he examined the specimen and found pneumococci in almost a pure culture; they had, however, in all probability acted only as saprophytes, not as parasites; they stepped in when the lesion had been established, which was due to another cause. A true pneumococci process was not in operation, but a process which especially prevailed in other places, *i. e.*, in the brain to some extent, and in the kidney, and in the seminal vesicles. The speaker thought this a case of miliary aneurism; and if, at the anterior perforated space, the lenticulo-striate arteries and other arteries should be pulled out, they would probably be found in a state of miliary aneurism. This same state, in all probability, prevails in the lungs and in the seminal vesicles. The operation suggested, would in such a case, not be of the slightest avail; for this primary generally diffused condition of the vessels exists throughout the whole system, and if the patient had not died from this hæmorrhage, he would have died from hæmorrhage in some other part of his body. It is not always easy to determine in a patient, stricken with apoplexy, the precise location of the hæmorrhage; many apoplectiform attacks may take place; and we are not always able by the condition of the pulse and appearance of the patient to say that hæmorrhage into the brain had taken place. Again, it cannot definitely be determined to what extent such hæmorrhage will do damage; whether it is internal, occipital or capsule, or into the lateral ventricle. In the latter case alone, perhaps, would we be justified in attempting such a desperate operation as ligation of the common carotid. But suppose it was not hæmorrhage at all, but only an attack as in the first stages of general paralysis? We would then simply kill the patient.

Surgical Interference.

Dr. Broome.—Referring to the application of surgical therapy, in these cases, he expressed the opinion that a craniectomy, followed by the aspiration of the hæmorrhage, and, at the same time, pressure upon the carotid arteries, would afford the patient the best chance for recovery.

The primary factor, of course, is the hæmorrhage, but death is the result of mechanical pressure occasioned by the extravasation of the blood, and not from the mere amount of blood extravasated. Hence, the rational course to be pursued, it would seem, is to relieve the brain of the cause which threatens to produce speedy death.

As in all all surgical proceedures, the minutest details belonging to the most skilled handicraft of asepticism, must be scrupulously observed; and under these conditions as much liberty may be exercised with the contents of the cranial cavity as any other. The same rule, which governs the conduct of the surgeon in averting and relieving hæmorrhage within the abdominal cavity, should apply here as well.

Formerly, indeed, but a very few years ago, the peritoneal cavity was considered a *noli me tangere*; today, under the invulnerable discipline of surgery, the brain as a field of operation is yielding, in the most sublimely submissive spirit, some of the greatest triumphs in surgery.

When a person is stricken suddenly with cerebral hæmorrhage, why not attempt to relieve him by operative interference? Such cases do not recover from the conservative plan of treatment, which has, heretofore, been the prevailing rule. Compression, resulting from other morbid processes, are relieved, temporarily at least, by the operation of craniectomy alone, even though it may be found impossible to remove the cause of the compression.

The term craniectomy, so far as the speaker knew, was first suggested by Prof. Senn and is applied to the operation of cutting out a section of the skull, and establishing thereby relief of pressure from any cause. If the compression is due to a cyst, the contents of the same are aspirated, without incising the dura. It may be added, that the dura should never be opened until it is determined, by proper exploratory efforts, whether or not the indications justify it.

Dr. Gregory said he had felt for a long time that he was somewhat in disaccord with his professional brethern; but was delighted to-night to find himself in accord with Dr. Fry, with you, Mr. President, and with my friend, Dr. Broome. With Dr. Fry because his views are most advantageous to the patient; with the views of the President, because they are based on the soundest pathology; and with Dr. Broome, because his suggestion is certainly on the side of the surgeon. There is no question about the case being operable. There is no case that is not operable. It is not a question of that kind at all. If you open one side of the head and do not find the disease sought for there, open the other; and if you stick a knife in one side and nothing is found, stick it in on the other. It is only a question as to which one of the advocates of these different modes of treatment, is on the side of the patient, and which on the side of the doctor; Dr. Broome is the advocate of the surgeon, on the same side as such men as Horsely; but that man is more sensational than scientific. The speaker thought the man who learns how to perform a surgical operation after the most approved methods, and thinks of nothing else but the *eclat* accruing from performance of operations, and who forces all his powers in that line, is of all men the most dangerous. And yet he believed they were honest, but so completely befogged by the glamour —the *eclat* which is annexed to a surgical operation, that they forget everything else. So he was glad to be here to night and to find himself in perfect harmony with all his professional brethren.

Dr. Harkins thought the comparison of craniectomy and laparotomy by Dr. Broome unfortunte, when he compares aspiration of extravasated blood in the brain with a laparotomy. In the latter he not only opens the abdomen and removes the blood, but he also finds the point of hæmorrhage and arrests the flow, but in the case of a cerebral cyst, if once evacuated, the cyst will probably fill up again.

One of the differences between abdominal surgery and surgery of the cranial cavity is, when the former is opened the incision involves tissues that do not necessarily sustain the functions of life, but when the skull cavity is opened, together with the dura, vital structures are disturbed, and the rough handling of the cortex may destroy vital centers. Again, when the abdominal cavity is opened the bleeding spot is found and closed; whereas in the cyst of the brain the wall is unyielding, which must be removed to an extent that cannot always be determined in order to reach the locality of the lesion.

Echinococcus of the Brain—Operation by H. H. Mudd, M. D.

Dr. Bremer presented the specimen and said.—This specimen was removed yesterday by Dr. Mudd from the brain of a child, and proves to be an echinococcus cyst. It was at least the size of a very large hen's egg. Here is a portion of the growth, and also a microscopical section which shows the larvæ of the tenia echinococcus, as found in the dog. It is, no doubt, one of those unfortunate cases in which a child handled a dog infected with the tenia. These animals lick their anus, when itching from the action of the worms occurs; the eggs of the latter will, in this manner, cling to the tongue, and are thence transferred to other objects, the hands of a child; for instance; from thence to the mouth and the stomach of the child, the road is not long. In this instance, the organism found its way to the brain, where it produced the various brain symptoms, and external phenomena which were present.

The clinical features of the case are as follows. The patient was a young girl, æt. 11 or 12, who had always been healthy, never having suffered from any consider-

able disease; and in July and August last she was suddenly taken with intense headache. This headache lasted for several weeks, and was diffuse in character. In October the discovery was made that on the right side, about two and a half inches above, and a little anteriorly to the external meatus of the ear, there was a soft spot in the skull; at the same time a small tumor made its appearance, which could be made to disappear by pressure. If the pressure was removed a thin plate of bone, resilient, would pop out, after the fashion of the bottom of a tin pan, with a snap. The tumor finally enlarged and the headache disappeared, but various motor disturbances made their appearance. In the first place there was a paralysis of the facial muscles on the left side; there was a considerable weakness of the arm and a dragging of the left foot. When, at the request of Dr. Mudd, the case was seen, there was left sided hemi-paresis, accompanied by a tremor of the left arm, the child carrying it, as paralytics will do, supporting it with the right hand. The leg had at one time been more implicated; there had also been solitary spasm of the leg, twitching and trembling, but now in a less degree. No vomiting. No headache of late. No vertigo. Choked disk. No mental hebetude, but lack of initiating conversation.

The swelling of the side of the head had reached a circumference of a silver dollar, more or less, and there was still noticeable this peculiar softness on pressure and resiliency.

For operation, there was no localization necessary—the point of operative interference was clearly indicated by the tumor.

There was another feature of this case—left-sided homonymous hemianopsia—the child did not see toward the left side, but central vision was good. Sensation seemed unimpaired. At that time the opinion was expressed that there was present a tumor, probably an osteo-sarcoma of the right side, invading the substance of the brain, and pressing down through the corona radiata on the optic tract. The tremor of the arm indicated a pressure on, or interruption of conduction of, the fibers of that part of the corona radiata connected with the arm center. There was, therefore, a destroying lesion, giving rise to paralysis; and an irritative lesion, giving rise to constant tremor. The operation being performed, an osteo-sarcoma, as predicted, was not found. On the contrary, there were a number of cysts. These cysts extended downward into the substance of the brain, in the corona radiata, close to the lateral ventricle. A vision for the first time into the living lateral ventricle was then afforded, and to the speaker it probably will be the last, because he did not believe much in the surgery of the lateral ventricles, which is now being discussed as a part of cerebral surgery. Evidently not much nerve substance had been destroyed, but the fibers of the corona radiata had simply been pushed asunder by the cyst. The characteristic animals which inhabit the cyst were responsible for its formation. It is to be hoped that there are no other organs in this patient's body affected with this parasite.

SELECTIONS.

HISTORY OF A CASE OF CEREBRAL TUMOR: DIAGNOSIS: OPERATION: PATHOLOGY.

Read before the Glasgow Medico-Chirurgical Society.

I.—Diagnosis and Localization from the Nerve Symptoms.

BY T. M'CALL ANDERSON, M.D.,

Professor of Clinical Medicine in the University of Glasgow.

Gentlemen.—I have to request your careful attention to the details of the history of this case, because it is mainly from them that the diagnosis of the seat and nature of the disease was made.

A. K.,[1] æt. 16, engineer's apprentice, was admitted to Ward 2 of the Western Infirmary on August 14, 1890, complaining of fits and of paresis of the left arm and leg. No definite neurotic tendency can be traced in the family beyond the fact that his mother suffers frequently from headache, and that for a number of years he himself has been similarly affected, apparently as part of "bilious attacks." There is no history nor are there evidences of syphilis or tuberculosis. There is an indefinite history of slight discharge from the ears during infancy, but all traces of this have been absent for a number of years.

About four years and a half ago, without previous warning, and while in the act of lacing his boots, his left forearm was suddenly flexed, and, uttering a cry, he fell down in a semi-insensible condition, conscious to a certain extent, of what was going on around him, but unable to speak or move. Ever since this fit he has complained at times of slight pain, numbness and weakness in the left hand, and within the last year or so this had been more frequently and severe. The pain and its accompanying numbness are usually experienced in the left thumb and forefinger, and, only when severe, extend to the rest of the hand and forearm.

No recurrence of fits took place till a year and a half ago, when, on May 10, 1889, a second occurred. This was preceded by lateral oscillation of the head for about two hours. Pain and numbness were then complained of in the left thumb and forefinger, which gradually extended upward through the left hand and forearm to the arm, finally affecting the left side of the face, including the left half of the tongue. He remembers uttering a cry and falling, and a quarter of an hour later he woke up, unconscious of what had happened, and complaining of headache and nausea. A third fit occurred on the following day, and fourteen days later a fourth. These all began in much the same manner, and had much the same character and duration.

Alarmed about this state of matters, he sought admis-

[1]Reported by the resident medical officer, Mr. L. R. Sutherland, M.B., C.M.

sion to hospital on June 11, 1889, and was under treatment by mixed bromides, gr. v, increased to gr. xv t. i. d. till August 3, 1889, when he was dismissed much improved. While under observation on this first occasion he had only two fits. These were ushered in by pain in the left thumb and forefinger, extending up the arm toward the head. The actual fit was apparently a generalized convulsion, said to have been attended by sobbing and profuse perspiration.

A fortnight after leaving hospital the fits returned, and have since continued to recur. At times intervals of from eight to sixteen weeks elapse, at others they occur daily, even though he may be under the influence of bromides. The fits, since he left hospital, have differed from the previous ones in so far as there has been no loss of consciousness. The aura has been continued as before.

For a month before his readmission the numbness and pain in the left hand and forearm have been becoming rapidly worse, and partial paralysis of the left arm, gradually extending to the leg, has developed.

During the ten weeks he was under observation in hospital for the second time eighty-nine fits occurred. From August 21 to September 17 there were no fewer than eighty-seven, on an average three daily. Under the influence of treatment they gradually became less frequent, and finally ceased. For three weeks no fits occurred. On October 10, and again on the 26th, a slight recurrence took place, all treatment having been suspended on the 21st.

Examination.—The limbs of the affected side are somewhat flabby and cold. There is very decided paresis of the left arm and hand, the dynamometer registering on the right 50 kilos, on the left *nil.* Quite distinct, but less decided, paresis can be made out in left leg on resisting movement. There is exaggeration of the left knee and wrist jerks, slight left ankle clonus, and the superficial reflexes are active. Tactile sensation is perfect. A feeling of numbness is experienced all over the left side, particularly in the arm and leg, and to a less extent in the left side of face and left half of the tongue, but this is not constant. There is slight facial paralysis as estimated by the usual tests. There is slight deviation of the uvula to the left, and the tongue on protrusion is slightly deflected to the affected side. Pain, at times very acute, is complained of behind and above the right ear and in the right frontal region, and, at a point 2 inches above and behind the ear, an area of distinct tenderness discovered on percussion.

The following are the results of the examination of the eyes, ears, and urine:

Dr. Hinshelwood's Report on the Condition of the Eyes (September 11, 1890.—"Well-marked optic neuritis present in both eyes, but all the changes are most marked in the right. The papillæ are swollen, and the normal cupping of the discs entirely obliterated. The edges of both discs are obscured, so that it is impossible to make out where the retina begins and the disc ends. The papillæ are of a deep greyish-red color, but towards the outer part are surrounded by a palish halo. The veins are dilated, and the arteries are smaller than normal. The retinæ, for a considerable distance round the optic discs, have lost their transparency, and have an opaque greyish appearance, which gives a very dull fundus reflex on ophthalmoscopic examination."

Dr. Barr's Report on the Condition of the Ears (October 29, 1890).—"Right ear. Hearing power slightly under the normal; tympanic membrane fairly normal; no perforation, cicatrix, or any evidence of present or past purulent disease. Bone conduction good. The tinnitus is probably connected with some form of irritation at the auditory center in the brain. Left ear: Pear-shaped cicatrix in tympanic membrane; rest of membrane opaque. There are indications of a past purulent disease of the middle ear. Hearing power more impaired than on the right side.

Dr. W. F. Somerville's Report on the Urine (October 30, 1890).—"A. K.; amount of urine examined, 1.2 lite in 24 hours; color, palish amber; odor, urinous; reaction, neutral; specific gravity, 1022.

	In Per Mille.	Grmms. in 24 Hours.	
Water	948.8	1148.5	
Dry residue	51.2	61.4	
Organic material	33.5	40.2	rel. abs.
Ash	17.7	20.2	+ n.
Extractive material	7.3	8.7	sl. + sl. +
Urea	25.2	30.2	— —
Chlorides	11.1	13.3	+ +
Sulphates	3.0	3.6	— —
Phosphates	3.67	4.4	n. sl. —
Uric Acid	—		
Pigments	n.		
Albumen	none.		
Sugar	"		
Ammon. carb	+		
Alkali phosphites	2.46	2.95	sl. — sl. —
Alkaline earth phosphates	1.21	1.44	+ +

Note. + = increased; — = decreased; rel. = relatively to dry residue; abs. = absolutely in twenty-four hours; sl. = slightly; n. = normal.

"*Result.*—I have neither seen the patient, nor do I know any clinical particulars of the case. From the examination of the urine according to the method recommended by Mr. A. E. Haswell, pathological chemist, I find evidences of brain irritation, as shown by the increased excretion, relatively and absolutely, of the earthy phosphates, caused, perhaps, by the presence of a tumor, or by the pressure of bone on the brain-substance; or possibly, though not likely, by a very old encapsuled abscess. From the light color of the urine, the specific gravity, the amount of urine voided in

twenty-four hours, the relatively decreased urea, and the increased chlorides, the possibility of any suppurative process, as one would find in a case of abscess or of meningitis, can be quite excluded."

The following is the substance of my remarks to my clinical class prior to the operation: In reference to diagnosis, the points which we have specially to consider are two; first, the seat; and secondly, the nature of the lesion.

1. *The Seat of the Lesion.*—The disease is manifestly cerebral, and implicates the right side of the brain, as the resulting manifestations are almost exclusively on the left side of the body, while the paralytic phenomena indicate implication of the motor tract. But what part of the motor tract is the seat of the mischief? The symptoms point, I think, very positively to the cortex cerebri. For it must be borne in mind that in cortical lesions convulsions are very common, are frequently limited, at least at their onset, to the part whose center is irritated, and consciousness is often retained, factors which are all present in our patient. In such cases, too, a sensory aura often precedes the epileptiform seizures, and in this instance the fits set in with numbness and pain in the left thumb and forefinger.

This last circumstance, coupled with the fact that the paralysis began in the left arm, points to a lesion having its center about the junction of the middle with the lower third of the ascending parietal convolution. This conclusion is somewhat supported by the pain which was complained of, and by the tenderness on percussion above and behind the right ear, although it must be rememberod that the seat of pain does not necessarily correspond with the seat of the disease.

2. *The Nature of the Lesion.*—The history of suppurative disease of the middle ear naturally leads to the suspicion that there might be a cerebral abscess; but this suppuration occurred on the *left* side, and in early life, a good many years before there were any symptoms of cerebral irritation; while Dr. Barr's report furnishes evidence of prolonged absence of active disease of the middle ear. So that we may almost certainly exclude the hypothesis of abscess of the brain, more especially as Dr. Somerville's report on the urine is decidedly against such a view.

That being so, we can come to no other conclusion than that we have to deal with a tumor of some kind. The most common form of cerebral growths are tuberculous or syphilitic in their nature, and which might possibly be influenced by the inoculation of Koch's fluid on the one hand, and anti-syphilitic treatment on the other. But there is no history of a hereditary tendency to tuberculous disease, nor is there any indication of a delicacy of constitution in the patient himself. And, as regards syphilis, there is no history or symptom of hereditary transmission of the taint, nor is there any suspicion of the disease having been acquired, not to speak of the age of the patient which, of itself, almost excludes it. A cancerous growth is out of question, as the patient presents none of the characteristics of malignant disease, nor does there appear to be a family predisposition thereto.

If, then, we are right in our view that the tumor is neither tuberculous, syphilitic, nor cancerous, all that we can say further is that the intra-cranial growths which are most commonly met with are glioma or sarcoma; and the only way of getting rid of them is by operative interference.

II.—Operation for Its Removal: Recovery.

BY GEORGE BUCHANAN, M.A., M.D., LL.D.,

Professor of Clinical Surgery in the University of Glasgow.

Cerebral surgery at the present day is in much the same position as abdominal surgery was thirty years ago. In April, 1864, I performed the first successful operation of ovariotomy in Glasgow or the West of Scotland. Not very many years before that, the leading surgeon in Scotland had openly declared his opinion that ovariotomy was unjustifiable, and that a surgeon who undertook that operation with a fatal result, laid himself open to a charge of culpable homicide. At the present time, owing to improved methods of operating and after-treatment, abdominal section is performed with impunity almost daily.

Cranial or cerebral surgery is now on its trial. Horsley, Macewen, Park, Bergmann, and others have clearly established that operations on the cranium for the relief of abscess and removal of morbid deposits and new growths, evidenced by well ascertained nerve symptoms, can be undertaken with success. But as yet the opportunities for performing these operations have fallen into very few hands, so that it is the duty of every surgeon who can add to the limited experience to do so.

Trephining has frequently been performed in cases where there are scars on the scalp or depressions of bone indicating former injury, to which nerve symptoms, such as paralysis, convulsions, or neuralgia, etc., might be traced. A very striking example of this I published in the *British Medical Journal*, December 14, 1889, p. 1318.

But the interest in the cerebral surgery of the present day is centered in those cases where the abnormal condition of the brain is diagnosed and localized by the nature and situation of the nervous affection, as first pointed out by Ferrier.

I have not for myself collected the published cases for the last two years, but the results of operations up to 1888 have been summarized in a paper by Dr. Park in the *Transactions* of the Congress of American Physicians and Surgeons at Washington, published in 1889. The table includes those only in which the operation was performed according to the principles of cerebral localization, without reference to scars or surface markings. The table contains 63 cases; the deaths were 17; 15 of the cases were abscesses, subdural or subcortical; in 11 the lesion was a tumor, exclusive of tuberculous nodules; there were 12 cysts; the other 25

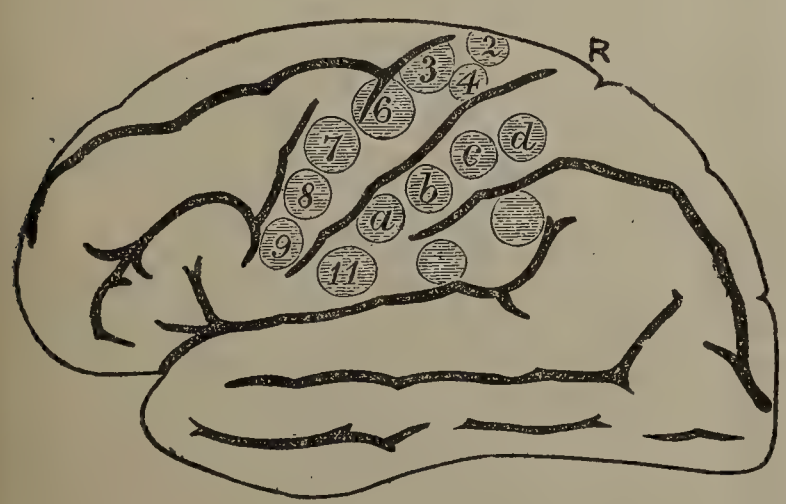
were of a miscellaneous nature, such as the fibrination of a clot, gumma, tubercle, and pressure from confined and altered serous or other fluid.

These statistics, like most others, are probably defective. Additional cases may have been recorded and escaped the notice of the compiler, others may have been done and not published. No doubt every successful case has been recorded; not so with some the result of which has been negative or fatal. Still, the table is valuable, as the compilation, so far as could be achieved, of cases of the operation referred to, during the early years of its introduction.

The following remarkable case comes under the category of those included in Dr. Park's table:

A. K., æt. 17, an engineer by trade, was admitted under my care to Ward 3 of the Western Infirmary on October 30, 1890. He had previously been in the medical wards under Prof. McCall Anderson, who has given a detailed account of the history of the case and the diagnosis, which may be summed up in a few words: For three years he has been subject to epileptic attacks, which have gradually increased in frequency and severity. They always begin and sometimes are limited to the thumb and forefinger of the left hand, but frequently involve the whole limb, and sometimes the leg of the same side. Of late, the left arm has become partially paralyzed, and to a slighter degree the left leg.

These symptoms seemed to a point to gradually developing lesion, probably a tumor, in the cerebral center presiding over the movements of the thumb, fingers and wrist, which are very distinctly marked out in Ferrier's map of the cerebral convolutions, at the junction of the middle and lower third of the post-Rolando convolution.



2, 3, 4, centers for the movements of arms and legs; 6, center for supination of hand and flexion of forearm; *a*, *b*, *c*, *d*, centers for hand and wrist; 11. *a*, *b*, *c*, *d*, are on the ascending parietal convolution behind the fissure of Rolando R. The tumor was situated under *a*.

Accordingly, after careful consideration, Dr. Anderson and I decided that an exploratory operation should be performed on the region referred to. In the preparation of the patient, the steps of the operation, and the after-treatment, I followed rigidly the plan described by Victor Horsley, and had every reason to be satisfied with the result.

Three days before the operation the head was shaved, to allow me to study the topography of the cranium. The point at which I proposed to open the cranium was fixed on by the following measurements: the distance between the root of the nose and occipiatl protuberance was divided into two equal parts; half an inch behind the center point, indicating the upper end of the fissure of Rolando, was marked. From this point a line was drawn downward and forward at an angle of 65°; this indicates the direction of Rolando's fissure. Three inches down, just behind the line, are situated the convolutions indicated in Dr. Ferrier's plan as those presiding over the movements of the thumb and finger. These spots and lines were marked with a blue pencil. The scalp was then thoroughly cleansed, and a wet compress of carbolic solution kept on continually.

On October 30, the day preceding the operation, the bowels were cleared out with castor oil, the head was again shaved, cleansed, and kept moistened with carbolic acid solution.

The operation was performed on October 31, at 9:30 A.M. Immediately before this he had a quarter of a grain of morphine subcutaneously, which is believed to have some effect in controlling hæmorrhage from small vessels of the brain.

The patient having been put under chloroform, I made a semilunar flap of the scalp, including the aponeurosis, the upper part of which was near the vertex, the base about 3 inches wide, across the lower part of the fissure of Rolando, that is, just on a level with the top of the pinna. One or two small arteries were ligatured. The pericranium was turned aside from part of the skull, where a trephine was applied, just at the spot previously determined by the surface marking. The trephine was rather larger than a shilling. The button of skull which was removed was placed between folds of lint moistened with carbolic solution, and kept warm. The dura mater exposed by the trephine and the convolutions beneath seemed to be perfectly normal, and presented no evidence of any tumor or lesion. Thinking that the diseased area might be further up, behind the fissure, on the center indicated for the arm. I applied the trephine 2 inches above and behind the former situation, and removed a similar disc of bone. I then applied a Hey's saw in a line touching the outside of both centers, and with a lever removed the intervening bridge of bone. All the pieces were kept moist in warm carbolic solution. I now clipped the dura mater for four fifths of the circumference of the oval aperture, about a sixth of an inch from the edge of the bone, and so exposed the cerebral surface. At no part was there indication of any abnormal condition, nor on pressing it with the point of the forefinger was there any evidence of either fluctuation or undue resistance. But at the lower part, just in the center of the first trephine hole, the cerebral convolution seemed to bulge a little, and while feeling it with the smooth end of a director it

suddenly burst asunder, and a dark red or brownish body resembling an Orleans plum emerged from below and pushing aside the cerebral substance, which seemed to have been extended over it, occupied the lower part of the opening. With my finger and thumb I found I could move it in the brain, and with the spoon-like end of a large director I lifted it out of its place, without tearing anything and without any hæmorrhage. It was regular and nearly globular, smooth on the surface as if enclosed in a thin capsule, and was about the size of a walnut. It was evidently removed entire without any breaking or bruising, as the cavity from which it came contained no debris, and it closed at once by resiliency of the surrounding substance.

After washing the wound with a stream of antiseptic fluid, I sewed the dura mater into its place with stitches of fine silk. It came together edge to edge, except at a small part where it had been torn. I now replaced the discs of bone in their situation, and filled up the space between them with pieces of the intervening bridge of bone, which I had cut into four or five portions. The semilunar flap was then put into position, and retained with fine silver wire stitches, a little opening, into which I put a drainage tube, being left at the posterior angle. A dressing of alembroth gauze and Gamgee cotton was applied with a very slight pressure. The patient stood the operation well, and his progress to recovery was almost uninterrupted.

It is unnecessary to give daily reports, but the after-treatment and course of the case have been summarized by Mr. Kerr, M.B., my house-surgeon.

Urine was drawn off only on two occasions, once on the afternoon of the operation, and once again on November 5.

Opiates.—One-sixth of a grain of morphine was given hypodermically on two occasions for headache—at 1 A.M. on November 3 and 5.

Delirium.—Only on one occasion did the patient seem somewhat confused, and that only to a slight extent on the evening of November 3.

Headache.—A good deal of frontal headache till November 7, which was relieved by a small dose of antipyrin.

Bowels inclined to be constipated, which was obviated first by soap and water enemata, and subsequently by gentle laxatives.

Food.—Only a little milk and soda water was allowed till November 5, then a little toast, afterward milk and biscuits, of which he was very fond, and gradually to more generous diet.

Dressings changed for the first time on the fourth day. Edges of the wound for the most part united, except where the drainage tube emerged, and one or two points where there were a few granulations. Tube removed.

November 13. Dressing changed a second time; a little discharge on the dressing. Some projection of the flap, which made an elastic swelling. No pulsation.

November 18. The bulging of the flap distinctly less; a little discharge and granulation at site of exit of tube. After this the progress of the wound to recovery was uninterrupted.

The tumor was a spindle-celled sarcoma, as reported by Dr. Coats, pathologist.

Nervous Symptoms and Fits.—On November 10, at 11 A.M., he became unconscious for about two minutes, the arm and mouth twitched, and the head was thrown to one side.

On November 18, in the evening, he had an attack similar to the above.

On November 19, during most of this day he felt uncomfortable, with occasional twitchings in the limbs.

On November 25 he had a very slight attack.

After this he was very well in every way till December 22, when he lost consciousness for a minute and had some twitchings on the arm, but not head or leg.

Since that date he has had no return of any of these symptoms, and is very much better in ever way; cheerful, taking his food well and sleeping without any disturbance.

On January 13, 1891, he got up out of bed for the first time and daily since.

Present Condition, February 18, 1891.—The flap of the scalp, which had been dissected off to expose the bone, is now completely adherent. It is raised above the level of the surrounding scalp about half an inch. Underneath this can be felt the pieces of skull, which had been replaced and are now firmly united to each other and to the adjoining edges of the aperture, so that there is now a complete closure of the opening, except over a small space of about three quarters of an inch in diameter, where I had left the dura mater uncovered with pieces of bone, to allow of some little discharge. Here, however, the scalp is so thick and firm that the gap is practically closed. So far as the operation is concerned the result is perfect. The patient's general health and condition are most satisfactory. He has not had any epileptic attack nor even a partial twitching, since December 22, a period of eight weeks, so that that part of the nerve ailment may be considered as cured.

The left arm, which before the operation was paralyzed to the extent that it lay powerless by his side, at least could not be raised or moved without the assistance of his other hand, can now be raised and moved about voluntarily. There is, however, when he moves it to any great extent, a spastic contraction of the muscles of the fingers, wrist and elbow, which tends to keep the limb more or less rigid; so that the cerebral convolutions over the region from which the tumor was removed have not regained entirely their normal functions. This, however, is daily improving.

Postscript.

March 10, 1891.—The foregoing paper was read at a meeting of the Glasgow Medico-Chirurgical Society on February 20. That evening the patient was sitting by the fire, waiting for the cab in which he was to be taken

to be shown at the meeting. Without warning, he was seized with an epileptiform fit, affecting, as formerly, only the left hand and arm, and slightly the leg. It lasted about two minutes and a half, and there was no loss of consciousness. He remembers all about it. It came on suddenly without any premonitory sensation or aura, and passed off leaving him very much as he was before. He told me all about it next day, and said he believed it had been brought on by the partial excitement he had been in all day at the prospect of being taken to the Society and shown to so many medical men. I think that probably he was right and that it was a transient attack, and might be explained by the long time the cerebral substance had been pressed upon and altered by the growth of the tumor, so that it had acquired a habit which had not yet passed off, though it had manifested itself at very long intervals. I suppose we may still expect some slight attacks to recur before the brain tissue is restored to its normal functions.

III.—Report on its Pathology.

BY JOSEPH COATS, M.D.,

Lecturer on Pathology in the University of Glasgow.

The following note was made when the tissue was fresh, immediately after the operation:

The specimen is a soft, fleshy piece of tissue of a reddish color; its surface is irregular, having a granular appearance, which on closer inspection looks almost papillary; at least there are a number of regular flat elevations of very small size. The tumor is a flat mass of a generally triangular shape, having somewhat the outline as well as the size of the supra-renal body. Its longest diameter is $1\frac{1}{2}$ inch; its other diameter 1 inch, and its thickness $\frac{1}{2}$ inch. The tissue is very friable, and there is no defining capsule.

A portion removed by scissors from the surface shows the tissue to be very vascular, numerous capillary vessels forming a reticulated network. At the surface the vessels show what looks like papillary projections. Between the vessels, and to some extent clothing them, are large quantities of cells which are of considerable size, and contain large oval nuclei.

A portion of the tumor was hardened in absolute alcohol imbedded in colloidin,and sections made with the microtome. The sections stained readily with logwood, alum carmine, Bismarck brown, etc.

The tissue contains numerous vessels, and each vessel is surrounded by a mantle of translucent tissue sparsely provided with cells. This tissue in specimens mounted in Canada balsam is homogeneous and structureless in appearance, but in glycerine it is seen to have a finely fibrillated character. The thickness of this mantle varies considerably, in some places equaling the diameter of the vessel, in other places much less.

The tissue generally consists of cells mostly oval or spindle shaped. Between the cells there is the merest trace of inter-cellular substance consisting of reticulated fibers. The papilliform appearance noted in the fresh state is not borne out in hardened specimens; and it was due, doubtless, to the fact that at the torn edge of the tissue, the vessels with their mantle presented themselves individually.

From the character of the tumor, it may be regarded as a spindle celled sarcoma, but taking into consideration the mantle around the vessels, it belongs to the group Plexiform Sarcoma.—*Brit. Med. Jour.*

STATE ENACTMENT TO BE OBSERVED BY MEDICAL PRACTITIONERS.

The "Report of the Illinois State Board of Health," first in the van, which precedency it worthily maintains, records the prerequisites to be observed by physicians desiring to practice in the several States of the Uuion as follows, viz :

Resume of Medical Practice Acts in the Different States and Tereitories.

Alabama.—Examination by the State Board of Examiners, or by a county board of examiners. Law passed in 1877.

Arizona.—Register diploma with county recorder. Passed in 1881.

Arkansas.—Registration of diploma or examination by the State or a board of examiners (latter inoperative). Law passed 1881.

California.—Certificate on diploma from a "college in good standing," or examination by one of the three boards of examiners. Passed in 1876.

Colorado.—Certificate on diploma of college "in good standing," or examination by the State Bord of Medical Examiners. Passed in 1881.

Connecticut.—No law, except against advertising itinerants.

Delaware.—Registration of diploma in a county clerk's office. Passed in 1883.

District of Columbia.—Endorsement of diploma or examination by committee of the District Medical Society (practically inoperative). Passed in 1838.

Florida.—Examination by one of the State or district boards of medical examiners. Passed 1884, 1889.

Georgia.—Registration of diploma in the office of the clerk of the superior court. Passed in 1881.

Idaho.—Record diploma at county seat. Passed in 1887.

Illinois.—Certificate on diploma from college "in good standing," or examination before the State Board of Health. Passed in 1877, 1887.

Indiana.—Registration of diploma in county clerk's office. Passed 1885.

Indian Territory.—(*a*) Cherokee Nation: Examination by the Board of Examiners of the Nation. Passed 1878. (*b*) Choctaw Nation: Certificate on diploma or examination by the Borrd of Examiners of the Nation. (*c*) Creek Nation: No law.

IOWA.—Certificate on diploma from college "in good standing," or examination by the State Board of Medical Examiners. Passed 1886.

KANSAS.—No law.

KENTUCKY.—Ten years' practice, or registration and endorsement of diploma of a legally chartered college by secretary of the State Board of Health. Passed 1874, 1888, 1890.

LOUISIANA.—Recording diploma before county clerk or justice of the peace after endorsement of same by State Board of Health, which is "required to certify to the diploma of any medical institution of credit and respectability without regard to its system of therapeutics." Passed 1882, 1887.

MAINE.—No law.

MARYLAND.—Verification of diploma of college "in good standing," or examination by State Board of Health (law inoperative). Passed 1888.

MASSACHUSETTS.—No law.

MICHIGAN.—Record diploma in county clerk's office. Passed 1883.

MINNESOTA.—Examination by State Board of Medical Examiners. Passed in 1883 and 1887.

MISSISSIPPI—Examination by a County Board of Medical Censors. Passed 1882.

MISSOURI—Certificate on diploma from college in "good standing," or examination by the State Board of Medical Examiners. Passed 1883.

MONTANA.—Ten years' practice, certificate on diploma from a college in "good standing," or examination by State Board of Medical Examiners. Passed in 1889.

NEBRASKA.—Register in the office of the county clerk. Passed 1881, 1883.

NEVADA.—Register diploma before the county recorder. Passed in 1875.

NEW HAMPSHIRE.—License from the board of Censors of Medical Society.

NEW JERSEY.—Examination by the State Board of Medical Examiners. Passed 1880, 1888, 1890.

NEW MEXICO.—Endorsement of diploma or examination by Territorial Board of Examiners. Passed 1882.

NEW YORK —Examination by one of the State Boards of Examiners, after September 1, 1891. Endorsement of diploma until September 1, 1891. Law passed 1880, 1888, 1890.

NORTH CAROLINA.—Examination by the State Board of Medical Examiners. Passed 1859, 1885.

NORTH DAKOTA.—Examination by the State Board of Medical Examiners. Passed 1890.

OHIO.—Law inoperative.

OREGON.—Certificate on diploma from college in "good standing," or examination by the State Board of Medical Examiners. Passed 1889.

PENNSYLVANIA.—Registration of diploma before county prothonotary after endorsement (of diploma from college outside of State) by some medical college within the State. Passed 1881.

RHODE ISLAND —No law.

SOUTH CAROLINA.—Examination by the State Board of Medical Examiners. Passed 1881, 1888.

SOUTH DAKOTA.—Certificate on diploma, or examination by Territorial Board of Health. Territorial law, 1884.

TENNESSEE.—Registration after certificate on diploma of college in "good standing," or examination by State Board of Medical Examiners. Passed 1889.

TEXAS.—Registration after endorsement of diploma, or examination by a District Board of Examiners. (Practically inoperative). Passed 1876, 1879.

UTAH.—No law.

VERMONT.—Registration after endorsement of diploma, or examination by a Board of Medical Censors appointed by either State Medical Society. Passed 1880.

VIRGINIA.—Examination by State Medical Examining Board. Passed 1884, 1888, 1890.

WASHINGTON.—Examination by State Medical Examining Board. Passed 1890.

WEST VIRGINIA.—Certificate on diploma of "reputable" college, or examination by the State Board of Health. Passed 1882.

WISCONSIN.—Examination or endorsement of diploma by the censors of any State or county society. Laws of 1878, 1881.

WYOMING.—File record of diploma with registrar of deeds. Passed 1886.

In Minnesota, Montana, North Dakota and Washington, every applicant for license to practice must have attended three courses of lectures. The same will be required by the California Boards after July 1, 1891; the Colorado Board after July 1, 1893; by the Illinois and Iowa Boards after the session of 1890-91; and by the Boards of Examiners of New York after September 1,1891. There will probably be three more State examining boards in the next year.

TREATMENT OF IMMATURE CATARACT BY MANIPULATION CONJOINED WITH INSTILLATION.

Dr. R. Kalish, of New York, proposes a new method of treating immature cataract (*Medical Record*, March 29, and December 20, 1890). The instillation consists of equal parts of a 1% solution of boracic acid in rose water and glycerine. The proportion of glycerine is diminished, if its use causes too much irritation, lasting five to twenty seconds, or increased to double the amount of boracic acid solution, if there be no irritation. Each successive application, as a rule, causes more smarting. Conjoined with this instillation, a form of manipulation is conducted as follows: The patient, seated in a chair and the operator standing os sitting behind, two drops of the solution being introduced into each eye, he "places both hands over the closed eyes, so that the tip of each middle finger rests upon the eyeball at its nasal side, the index and ring finger falling into place beside the middle finger. With slight pressure upon the eyeball the three fingers are drawn outward over the eye to the

temporal side. This procedure is repeated twenty to thirty times a minute, the stroking being in one direction only, and continued for ten minutes, when a second instillation of two drops into both eyes should be made, manipulation carried on as before for ten minutes; then a third instillation, followed by manipulation for ten minutes. * * * This treatment is to be continued daily for a week, and then the interval between the instillations lengthened to fifteen minutes." The treatment should be continued for three or four months.

Upon his experience in the treatment of twenty-four cases, he formulates the following conclusions:

1. "Further investigations are necessary before a decided opinion can be expressed as to the result of this treatment of immature cataract."

2. "Immature, uncomplicated cataract can be benefited to the reacquisition of reading power, that is, to good, useful vision."

3. "Incipient cataracts, and those which have but passed into a state of immaturity(!) can be entirely absorbed(?)."

4. "This being so, the sooner a cataract comes under treatment, the better the result obtained."

5. "The effect produced * * * is permanent."

The Speech Center.—In a review of the second edition of Dr. Frederick Bateman's book on "Aphasia and the Localization of the Faculty of Articulate Language," published in the *Americal Journal of Insanity*, Dr. Bateman is quoted as practically discarding all the theories, including Broca's, of localization of the speech center. Although he admits that in a great number of cases aphasia has been found associated with disease in the left anterior lobe, and more especially in the third frontal convolution or its immediate neighborhood, and that the occurrence of derangements of speech with lesions of this limited area is so strikingly frequent as to take it together out of the region of mere chance, he explicitly states that he thinks the matter not proved so far as any arbitrary and definite localization of the faculty of speech is concerned.—*N. Y. Med. Jour.*

Medical "Sectarianism."—An American paper states that an agitation for the abolition of "sectarian medical teaching" in the State University is being promoted in Michigan, presumably among the representatives of homœopathy and the numerous other heterodox "pathies" which seem to flourish in the free air of the great republic more luxuriantly than in the effete monarchies of the Old World. Petitions are being circulated by medical men, and hundreds of names have already been secured. "Sectarian medical teaching" is distinctly "good" as Polonius would say.—*British Med. Jour.*

Physicians and other readers of the Review should not fail to examine its advertising pages, where much that may prove of interest will be found.

USEFUL FORMULÆ.

The following are taken from *Pharmaceutical Era* of May, 1890:

Florida Water.—

℞	Oil of lavender,	℥ij.
	Oil of lemon,	℥j.
	Oil of orange peel,	℥j.
	Oil of cloves,	ʒv.
	Deodorized alcohol,	gallon, j.

Heredity, Health and Personal Beauty. Page 406.

Brilliantine.—

℞	Honey,	℥j.
	Glycerine,	℥ss.
	Cologne,	℥ss.
	Alcohol,	℥ij.

Same as above. Page 407.

Aristol.—Aristol (the bichloride of dithymol) is rapidly coming into favor as an excellent substitute for iodoform. It possesses all the therapeutic properties of iodoform without having the inconveniences of its irritant and poisonous action. It is a reddish-brown amorphous powder, becoming more and more pale as it loses its iodine from exposure to heat or light. It is soluble in water and glycerin, slightly so in alcohol, and very soluble in ether, chloroform, and liquid vaseline. The powdered aristol has already rendered great service as a cicatrizing agent in ulceration of the skin and mucous membranes, in epitheliomata, in ulcers of the leg, and in tuberculous and syphilitic ulcerations. Its application to these ulcerations is not painful, nor does it produce any of the phenomena of general poisoning, as does iodoform. Under the form of a pomade containing from ten to twenty parts of aristol to one hundred of vaseline, it has been used in cutaneous diseases, such as psoriasis, eczema, lupus, etc. Some observers have employed it in diseases of the nose, throat, and larynx, and it has been used in gynæcological practice in the treatment of endometritis, erosions of the cervix, and vulvar eczema. Swieciki has made pencils and suppositories thus:

℞	Aristol,	grs., 80.
	Gum Arabic, a sufficient quantity to make five pencils. And	
℞	Aristol,	grs. 7½ to 15.
	Al. theobrom., sufficient to make one vaginal suppository.	

It may be used in ethereal solution, or in collodion if so desired.

Internally it has been given in pill-form associated with the hypophosphite of sodium in cases of fœtid bronchitis and gangrene of the lung, with excellent results. In four or five days the sputa loose their offensive odor and the general condition is greatly improved. In pulmonary phthisis it diminishes the amount of expectoration.—Huchard, in *Revue Gen. de Clin. et de Therapeutique*, January 14, 1891.

PUBLISHERS' NOTICES.

Medical Books.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

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Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather binding. Published by Birmingham & Co. 1882. List price, $5.00.

Harley, Disease of the Liver, Leather binding. Published by P. Blakiston, Son & Co. 1883. List price, $4.00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

J. H. Chambers & Co.,
914 Locust Street, St. Louis, Mo.

The Whole Train Goes Through.—The Hot Springs train leaving St. Louis Union Depot via Iron Mountain at 8:20 p. m., is now running through solid to Hot Springs, Ark., including baggage car, coaches and sleepers, without change of any class. Ticket offices, 102 N. Fourth street and Union Depot.

Mariani Co., Vin Mariani, 52 West 15th Street, New York.—For many years we have been very familiar with this valuable medicinal agent, and with the elegant mode in which its virtues are presented to the medical profession. As a reliable constructive for constitutions mentally and physically over-worked, debilitated by protracted sickness, enfeebled by prolonged and scanty lactation, it can scarcely be excelled, combining in happy proportions, qualities gently stimulating, and mildly sedative. With far greater confidence than most others, we heartily commend this compound to the administration of the profession.

The Cottage Sanitarium.—This Sanitarium for adult persons of both sexes and for children, is situated in the delightful town of Collinsville, Ill., 10 miles from St. Louis, and is under the immediate supervision of A. M. Powell, M.D., physician and surgeon in chief, assisted by his son, M. M. Powell, M.D., and L. L. Miller, M.D., re-inforced by a corps of specialists of St. Louis, as special cases may require. Having known, personally, Dr. Porter for many years, well and favorably, we have no hesitation in commending him and his institution to all requiring medical, surgical or hygienic treatment, confident that they will be treated with skill, kindness and attention, and at reasonable rates.

Fairchild's Peptonizing Tubes for the preparation of peptonized milk, beef, gruels, oysters, etc., with the ordinary conveniences of the sick room. Superior to all the foods of the shops, more economical and more nourishing. Send for Fairchild's Practical Recipes and samples gratis upon demand. Fairchild Bros. & Foster, 82 and 84 Fulton street, New York City.

The Chesapeake & Ohio R. R., has kindly assured us that it will convey delegates to the American Medical Association (May 5) for one and a third fare. The local agent here thinks that opportunity to visit Old Point Comfort will be granted. Having passed over this line we can confidently assert that for variety and picturesqueness of scenery, forest and water, it is not surpassed by any in the United States, it being the scenic route in the East, as the Rio Grande route is par-excellence, that of the West. Courtesy and attentions on the part of the officers will contribute to enhance the pleasures of travel.

Mrs. Mayburn's Twins, with her Trials in the Morning, Noon, Afternoon and Evening, by John Habberton, author of "Helen's Babies," etc., has just been published by T. B. Peterson & Brothers, Philadelphia, Pa., in Paper Cover for twenty-five cents. All who have read the other stories of this author know with what charm he portrays the doings and sayings of the little ones. This story is no exception and its account of one day with the children is very true to human nature. The book is dedicated to "Mamma, my heroine, who may be found in nearly every home in the world, in heartiest sympathy." It is replete with humor and life and every mother should have a copy. Peterson's New 25 Cent Series, of which this is one, now numbers nearly one hundred different volumes, and a complete list of them will be sent to any address, and copies will be sent by mail on receipt of price by the Publishers, T. B. Peterson & Brothers, Philadelphia, Pa.

A Plain Statement.

Haverhill, Mass., March 7, 1891.

Antikamnia Chemical Co., St. Louis, Mo.

Gentlemen.—The Antikamnia sent me found a suitable case at once. My patient had long been a sufferer from Hemicrania, and the pain was never more than partially relieved by Caffeine, Acetanilid, etc.

Upon the recurring attack, I prescribed Antikamnia, three grains, every two hours. The first dose gave instant relief, to the great satisfaction of both myself and patient, and complete recovery was secured.

I shall hereafter use Antikamnia in preference to all other preparations, for the relief of Migraine, Sciatica and other nervous diseases.

Very respectfully yours, Chas. F. Foye, M.D.

ORIGINAL COMMUNICATIONS.

PUERPERAL MANIA.

BY R. W. SELBY, M.D., TINGLEY, IOWA.

March 17, 1891, I was called, at 10 P.M., to see Mrs. A., a primipara, whom I found in the first stage of labor; pain was light and recurring about every 30 minutes. I made an examination and found the head presenting, and os very slightly dilated; assurred her every thing was all right, but that it might be some hours before she would be confined. I then returned home, after leaving instructions to call me as soon as the pains became hard, as patient lived only half a block from my residonce. I was called again about 5 A.M., and found labor progressing nicely; os beginning to dilate, which was soon completed, and the head descended to the inferior strait by about 7 A,M.; but while the pains continued very severe there was no more progress. I waited until about 10:30 A.M., and as the patient was becoming exhausted, I applied the forceps and delivered at once with no bad effects, except slight laceration of the perineum, which I closed with suture. The child cried naturally and seemed all right for about 18 hours, when it suddenly died from no appreciable cause, but upon examination a couple of hours after death, the scrotum was found to be perfectly black. The mother continued to do well until the morning of the 21st, when upon making my visit I found her with a high fever, pulse 130, temperature 106°, and very nervous. I put her on antipyrin, aconite and quinine, thinking, perhaps, I had a case of puerperal fever, and ordered the vagina to be washed out with a warm solution of listerine. There was not a particle of tenderness over the uterus or abdomen and the lochia was normal in color, odor and amount. Under the above treatment the pulse fell to 120, temperature to 103° at 6 P.M., though patient was still very nervous. I then gave chloral in small doses, and discontinued the quinine.

On the morning of the 22nd, I found her resting better and temperature down to 102°. She continued to rest well until about 12 o'clock,when fever began to come up again and reached 105°, but in the evening it again fell to 103°. She then rested well until 3 A.M., when she became very restless and the temperature rose to 104°. I then called Dr. Singer, of Clearfield, in consultation; he arrived at 11 A.M., and upon visiting the patient again I found the temperature the same; she had been sick at the stomach; we changed the antipyrin for antifebrin and continued the other treatment. I called again at 3 P.M.; found the temperature had declined to 103°, patient was resting well and had taken some nourishment. At 8 P.M. I called again and found the temperature 102°, and patient resting nicely, and continued to do so until 2 A.M., when the temperature again rose to 104°. Spasms of the muscles of the face supervened and slight delirium, which rapidly increased and finally developed into acute mania. She would try to get out of bed and requiring two or three attendants to control her.She would swallow no medicine of any kind and had to be controlled by hypodermic injections of morphia. When not under its influence she would recognize every one, but talk and throw herself incessently from side to side. I again called in Dr. Singer; as she would swallaw no medicine we continued the morphia hypodermically and gave some nourishment between times, as she would swallow that when partially quiet. She continued in this condition until the morning of the 27th, or about 48 hours when she died. There was at no time any tenderness of the abdomen or tympanites, and the lochia continued normal all the time. Now, what surprised me the most was the irregularity of the temperature and the sudden beginning of the mania when she was on a fair road to recovery, and also the short time it lasted until it was fatal, as all authors speak of puerperal mania as generally ending in recovery. If any reader of the REVIEW has any information to offer or comments to make on the case I would be glad to see them.

WHAT IS THE ETIOLOGY OF THE "SLOW FEVER" OF ARKANSAS?

BY B. W. MASON, M.D., SHERIDAN, ARK.

There prevails in this section of Arkansas a continued fever (commonly called "slow fever"). While it occurs at all seasons of the year, it more frequently prevails in the fall and winter. To be taken with this fever means to be confined to the bed for from fifteen to thirty days, and longer. During a practice of ten years in the malarial districts of Alabama, I never saw a case of this fever. When I located in Arkansas and heard the people talk of the "slow fever" I supposed it was what we called remittent malarial fever in Alabama. I was not to remain deceived long on this subject. I was called to a case that turned out to be "slow fever"; the symptoms denoted a malarial cause. The patient was taken with a chill, the fever following on as in chill and fever. I treated these cases with quinine, and in no case did the fever give way under ten days. I soon became satisfied that (after keeping off the first chill after seeing the patient with quinine,) quinine was injurious to the case and prolonged the fever, and in many cases aggravated it, frequently producing rigors, which I have learned to call "quinine rigors".

I will give a brief history of one of these cases: Mr. S. M., æt. 24, a carpenter, was having chills and fever; he had a chill one morning about 9 o'clock, while covering a house, he remained until 5 P.M. on top of the house in the burning sun of a hot August day. The fever continued all night. The next morning he had a severe chill and sent for me. I gave him tincture of

veratrum until the temperature was almost normal. I gave quinine through the night; he had no chill next morning. I called about 10 A.M. and found his fever high. I treated this case with quinine; used such other remedies during the progress of the case as I thought the symptoms indicated. This patient was in bed thirty-two days, and at any time during the continuance of the fever I could produce a rigor with quinine in half to one hour. This was the last case of "slow fever" I treated with quinine. I, after a close study of these cases, began to notice symptoms of enteritis in nearly every case, this lead me to use salicylic acid, and Fowler's solution of arsenic. I have now substituted carbolic acid for the salicylic acid, and though I now often meet with cases with all the symptoms of "slow fever," none have fever longer than three to five days, and I give no quinine unless it be when I first see the patient and have reason to expect a chill. In all these cases the patient complains of no pain, except a slight headache and nausea; there is slight tympanitis. The temperature ranges from 100° to 104°, seldom lower than 100°.

I would be glad if some of the readers of the REVIEW would give their idea of the origin of these fevers, where there is no chill ushering in these fevers. I give no quinine whatever. I do not give solution of arsenic in sufficient quantity to counteract malaria; this would seem to explode the theory of a malarial origin.

This article is written from facts gotten at the bedside and not to get up a controversy. I confess that I am somewhat at sea as to the cause of these fevers, and would be glad to hear from the members of the profession, who may have met with such cases, and especially to have them give their idea as to how and why quinine produces rigors,

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GRANT'S THROAT.

RIDGWAY, PA., MARCH, 31, 1891.

G. W. BROOME, M.D., Editor WEEKLY MEDICAL REVIEW. *Dear Editor.*—I have been reading the article in the REVIEW on the subject of the Use of Tobacco, and am very much pleased with it. I have had a very extensive practice in the diseases caused by tobacco, and of many cases that had to be treated by specialists throughout our country, under different names, without relief. In all these cases I postively refused to treat them until the use of tobacco was entirely abandoned in any and every form. In all the so-called organic diseases of the heart and disease of the eye, ear, nose, throat, etc., the discontinuation of the use of tobacco and other proper treatment they recover.

I enclose to you one little illustration of a case that had been treated and called a "Grant's Throat."

Yours truly, C. R. EARLY.

About January 1, 1889, I was consulted by a man in regard to what he called a "Grant Throat." He had presented his case to many physicians and they all told him it was a "Grant Throat" and there was no help for him. He took it for granted that he had cancer and must die. Under the advice of some of his friends he came to me to see what could be done, or if the diagnosis was correct. On examination I found just back of the tonsil and behind the uvula, a small tumor, looking very angry. It had been constantly growing during the past two years and was very painful. He had been a constant smoker for over forty years, and being asked my opinion, I informed him that I did not know what a "Grant Throat" was as I had never seen Grant's throat, but his was a tobacco throat, and all caused by smoking tobacco. He asked for treatment but was informed that he could not have treatment from me unless he quit smoking,or using tobacco in any form, and gave him one week to decide. He decided to obey orders and I then took charge of the case with treatment as follows:

Once a day had the tumor touched with camphorated tincture of iodine, by means of a camel's hair brush, and had him use often during the day a gargle of chlorate of potassa, chloride of sodium and boracic acid dissolved in aqua comphor, also use the same as a spray through the nose; and take two pills, each containing hydrate chloride corrosive $^1/_{80}$ grain, and iodide potassium two grains, three times a day after eating, for a few days, then omit the pills and take six drops of Fowler's arsenical solution with tincture of iron and syrup of sarsaparilla for a time, then take pills as before, and a seidlitz powder every morning.

In four months he was perfectly well and has remained so up to this date.

THE DRY METHOD OF TREATING WOUNDS.—Dr. Hal C. Wyman, of Detroit, calls attention to this valuable method of treating wounds. The treatment consists in drying the wound with hot, dry towels taken from an oven where they have been heated to 212° F. (100°C). No water is allowed to touch the wound or the adjacent parts, from first dressing to final healing. Loose fragments are removed; all tissues bruised beyond repair are cut away with scissors; blood and dirt are scraped away with hot, dry towels. All lacerated parts are approximated and held with sutures which have been freshly sterilized dy dry heat. Then a dry mixture of Wyeth's impalpable power of boracic acid (7 parts) and iodoform (1 part) is rubbed into the wound along the lines of approximation. Over this are laid strips of iodoform gauze. Over them oakum freshly sterilized by heat, and over the oakum freshly sterilized cotton, held in place by a roller bandage fresh from the oven.

The dressings are allowed to remain undisturbed until healed, unless pain, rise of temperature, or soiling of the dressing by discharges indicates that fresh dressings are needed. This method, he claims, favors the cleaning of the wound, favors the control of hæmorrhage, diminishes the tendency to fermentation and putrefaction, hastens the repair of wounds, and insures the healing of flaps and ragged pieces which by the wet method would slough.—*Canada Medical Record.*

WEEKLY MEDICAL REVIEW.

G. W. BROOME, M.D., EDITOR, - - - 520 Olive St.
WILLIAM DICKINSON, ASSOCIATE EDITOR, 1322 Olive St.

TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this REVIEW, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings, carefully prepared in ink, accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the ST. LOUIS WEEKLY MEDICAL REVIEW, 520 Olive Ltreet.

All letters containing business communications or refering to the publication, subscription, or advertising department of this REVIEW, should be addressed to THE MEDICAL REVIEW ASSOCIATION, 914 Locust Street, St. Louis.

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SATURDAY, APRIL 11, 1891.

CONTRIBUTION TO THE STUDY OF TRANSMISSIBILITY OF TUBERCULOSIS BY THE MILK OF A COW.

(M. Auguste Ollivier, *Bulletin de L'Academie De Medecine.*) Two months since I saw in consultation at Chartres a young woman suffering with a very severe meningeal affection, that two of my confreres regarded as a tuberculosis, having a rapid progress. I could only concur in their opinion, of which the following proved the great correctness, for the patient died a few hours later.

This young woman, æt. 20, was born of very robust parents, who had never been sick. During her infancy and the earlier years of youth, she had manifested only some insignificant ailments, attributed, probably with good reason, to chloro-anæmia.

On last December 14, she complained of pain in her head, for which they gave her antipyrin; but notwithstanding all, the headache increased; ten days later (25th) she was restless during the night. On the morning of the 26th she lapsed into coma. Messrs. Drs. Maunoury and Amiot, who visited her at the time, detected paralysis of the limbs, double strabismus, with deviation of the axis upward and to the right. The coma became more and more profound. The other phenomena that attracted attention were profuse perspiration and almost constant convulsive movements in the face and limbs.

The patient was in the same condition when I saw her at 1 o'clock, after noon. She died at 9 o'clock the same evening, without having regained consciousness. It was properly referred, as my confreres had said, to a tuberculous meningitis, rapidly progressive. Nothing, absolutely nothing, in the personal and hereditary antecedents of the patient had warranted the supposition that a condition of this kind could have happened. Her parents were well and comfortably situated; she had lived amid excellent hygienic conditions, and she had also been relatively well cared for. Of all the incidents of her life, previous to the affection which occasioned her death, there was only one, really, which the attention of physician or hygienist could fix upon, and unfortunately this peculiarity is not of those that suffices to give only a passing mention and a partial emphasis; it is doubtless to this which it is necessary to associate the case. Our patient had obtained her education at the boarding-school at Chartres, of which within a few years tuberculosis had seized thirteen, of whom six died. It is true that she had left the house four years before, but she had been for a long time a boarder there; she had lived in the same place, had partaken of the same diet as her companions, who had died before her; there was every reason to suppose that she had become infected with tubercular bacilli in the same manner as they.

Thirty years ago they probably would not have discovered the solution of this mystery; this simultaneous, and this succession of tuberculous affections with many scholars in the same establishment, would have been regarded as the result of a coincidence, of an accidental concurrence of young women, alike predisposed to the disease by heredity or otherwise. An investigation made at the abattoir in Chartres, November 26, 1889, revealed the circumstances in an entirely new aspect. On that day the veterinary inspector had forbidden the sale of the flesh of a cow, 9 or 10 years old, which appeared in good condition, and had been slaughtered in the morning; it had tubercles in the lungs, the peritoneum, in the belly, and, in addition, in the udders, which were entirely filled with them. In view of these things, they were induced to inquire into what had happened to the persons who had partaken of the milk of a similar animal. Nothing favorable was obtained; the cow came from the convent X; its milk had been consumed by the family of the house. It was there that the young woman with tubercular meningitis was educated; it was among the pupils of this school that she had been seized with the kind of epidemic of which I have made men-

tion. Of this we have the following remarkably minute account in the report of one of the correspondents of the Academy, M. Boutet, mayor of Chartre, made to the magistrate of d'Eure-et-Loir, on April, 1890, required by the law in force upon the sanitary police journals. From this report I extract, with permission of the author, all the part relating to the facts upon which we are now engaged, as follows:

Tuberculosis is more frequent than is generally thought, the more so as it may be difficult to detect it; although of those in the abattoirs the sanitary police have registered 41 cases of it, that is, 39 of milk-cows, and 2 only of bulls.

Among these cases, there is one which it will be useful for us to consider in detail. On November 26, 1889, a cow affected with tubercular mammitis was seized at the abattoir at Chartres, for the offence that the meat was offered for consumption. The animal, æt. 9 or 10, in apparently good condition, was one of the number tuberculous in the lungs, peritoneum, paunch, and especially in the udders, which were entirely crammed with them. She came to the boarding school of young women, conducted by the ladies X, where she was kept for nine years as a milk cow for the requirements of the house.

The question, very interesting, of the infection of tuberculosis of the cow, has a humane aspect, in consequence of the use of milk being now the order of the day in the medical world. I made inquiry of the physicians of the city in order to ascertain, if lately the health of the young pupils had or had not been injuriously affected. The following is the information obtained, viz.:

1. In the present month, October, 1887, young L., æt. 16, began to have diarrhœa, dislike for food; then followed pains in the bowels, tubercular peritonitis and a profound cachexy; death in February, 1889. Resume: Appearance of tuberculosis in the intestinal mucous membrane; thence the disease spread to the peritoneum.

2. Little C., æt. 9; no tuberculous antecedents; tired and much emaciated in April, 1888. In August, fever, extreme emaciation; no diarrhœa. Several physicians consulted detected a general tuberculosis without any localization. Such was the diagnosis of M. Damaschino, who saw the patient in November, 1888. In December, localization became apparent, and there was found in the abdomen mesenteric glands, indurated and numerous; œdema of the legs and of the walls of the abdomen, due, without doubt, to the compression occasioned by those tubercular masses. Cachexy. Death in January, 1889. Resume: Appearance of tuberculosis in the mesenteric glands.

3. A young pupil of 15 years; no tubercular antecedents in the family. Tubercular arthritis of the elbow in May, 1888. She had been many years at the school.

3. Little P. was attacked in November, 1888, with an acute affection that resembled at the time typhoid fever, but which in reality was a case of universal tubercularization very slowly characterizia. Death in 1889.

5. Little D., æt. 5. No tubercular antecedents in her family; was a pupil in the Ladies X-School for three years, when she was seized in April, 1888, with anæmia and emaciation. She left the school on May 15, following. Toward the end of May tubercular lesions of the lungs appeared. These lesions progressed rapidly; invasion of diarrhœa; death in September, 1888.

6. Little Sele, a pupil of the same school for many years. No tubercular antecedents. In September, 1888, she was seized with a cough; soon crepitant rales at the apex of the left lung behind, without change of sonoriousness. The following week the child coughed much more. General bronchitis with fever (39° in the morning). No appetite, the stomach always satisfied. Hemoptysis. The apex of the right lung was affected in turn. In February, 1889, to the symptoms were added those of intense bronchitis, with loss of voice. Persistent cough. In May respiration on right side improved. The rales of the left side diminished equally, and in one month after was cured.

7. About the same time, three pupils presented pulmonary symptoms, extremely well pronounced. In one of these a diagnosis had been made, by common consent between the physician of the family and that of the establishment, since confirmed by Dr. Jules Simon, of Paris. These three girls had left the house, and after a residence, more or less prolonged, with their families, in the open country, they recovered from that which they had experienced, to show that the phthisis had been acquired, and that there was no predisposition.

8. Finally, two other young girls of the school have likewise been attacked with tuberculosis. In one there had been well marked symptoms at the apex of one lung; in another there had been a pleurisy. The complete recovery of these two had scarcely been achieved in the course of five months to two years.

As a summary, we have four pupils of the same school dead from tuberculosis, and seven others who survived, but, however, presented to the physicians called to render their services, distinctive symptoms of the disease. On the one hand, in all, and in less than three months, eleven cases of human tuberculosis had been well established. On the other, the cow that had supplied the establishment with milk, during the period in which the children died or the patients suffered, was most certainly tuberculous. The official report of the veterinary having charge of the abattoir, and superadded a letter of M. Nocard, the able director of the school d'Alfort, to whom had been sent a specimen of the udder, removed all doubt in this regard. Under these circumstauces we can, we must assert that the cause was, the disease of the cow was communicated to the children. Such is my individual opinion. However, the fact should be borne in mind, in connection with others, that science has already acquired, and with those which can hereafter be discovered.

We have considered four victims, occurring within

ten months; we must now reckon two additional ones; we have the history of the last. Another was a young girl, æt. 14, attended by Dr. Maunoury, to whom I am indebted for the information which I possess of that with which she had been affected.

For several months this girl took her meals at the convent X, as a kind of half boarder. In the month of January, 1890, she emaciated in an alarming manner, and had fever every evening; her appetite lessened, all of which was attributed to influenza, but the longer it continued, the worse her general condition became. In the month of May, a local and persistent pain in the lumbar region induced the suspicion of tuberculosis of the vertebral column. The lungs on different occasions were carefully examined, without the discovery of any disease; but in a short time afterward the young patient was seized with a rapidly developing phthisis, and died last October.

Objections can, doubtless, be made as to the presumed origin of the tuberculosis of these two last patients, the force of which I do not wish at all to deny. One of these was seized several years after leaving the house in which was the accused milk cow. At the time when the other presented the first symptoms, the animal had been slaughtered for two months. I repeat, I do not wish at all to dispute the import of these objections; they appear to me singularly weak, when I compare the facts established by the testimony of the physician who attended the patients, and that of the veterinarys who had detected the condition of the animal, and had ordered the inquest.

In fine, it is proved that a cow, affected doubtless for several years with tuberculosis of the udders, exceptionally extensive, had furnished milk for the food of the children of a private boarding school.

It is proved that eleven pupils of this school became affected with tuberculosis of different stages, and that with many the site of origin evidently seemed to be intestinal.

It is proved that two other young girls of the same school succumbed to tuberculosis, whose previous state of good health and their family antecedents authorized the expectation that they would never be thus affected.

Here is what has been ascertained, and beyond all dispute. After this, it cannot surely be sustained that there was no etiological connection with the latter and the former facts, but an impartial consideration of the circumstances justifies the assertion that this opinion has no probability.

Doctors vs. Interviewers.

The subject of interviewing medical men has recently received ventilation by the New York Medical Society. The code was elevated to the rank and held as judge and jury, and by this standard must all questions receive final adjudication. Different degrees of allegiance were expressed by the members; but limited within the bounds of a generous interpretation. The code is not a perfect instrument by any means, but it is the best and only standard before the profession. Excessive stringency in some points we think it enjoins, but this error is less to be deprecated than too great laxity. If interviewers would strictly adhere to the publication of the text as committed to them, many of the objectionable features of interviewing would be obviated; but the dominant disposition to ornament, to amplify, to amminate and acidify, is often given full latitude, and thus is brought immerited reproach upon the doctor and subject. But in our opinion, medical societies and medical journals afford ample theaters for conveying useful and needed information to the public; through these media the profession primarily and secondarily the public may become enlightened respecting anything new or startly that pertains to the public good; the daily prints can thence extract those portions in which they may think the public are interested. We would not hamper the physician in the expression of his views, at proper times and under proper circumstances; would not interfere with the action of his will under a wise discrimination; we simply inveigh against the proclivity to rush, without restraint, into the daily prints to pander to the prurient curiosity of the public excited upon the last novelty proposed. No real good can permanently accrue to the public, by a premature announcement or disclosure; and any medical man, deluded into the commission of such indiscretions will suffer, more than he will gain, in the estimation of those whose good will and favor he should be most solicitous to deserve and receive.

We are in accord, in general, with the sentiments of Dr. Sturgis, formulated in the following, viz.:

1. "In case where our opinions are sought for in regard to matters pertaining to the public benefit."

2. "Where our advice or opinion is sought for in regard to new or unusual methods of treatment;" but with considerable discrimination.

4. "Where it is necessary to correct mistaken impressions in regard to operative procedures or surgical methods of treatment." Medical societies and journals are the best vehicles.

4. "It is permissible for physicians to advertise their names and addresses in the public prints * * * and stating the fact that they treat a certain class of diseases."

Dr. Shrady, we think, assumes the noble and dignified attitude, and strikes the key note of the entire subject: "When a physician was interviewed without thinking of himself, and spoke as the representative of the medical profession, and gave the public valuable information, that was perfectly proper," he could see no objection to it.

The suggestion of Dr. Daniel Lewis seems to us eminently proper, viz.: "That every newpaper should employ a medical man to handle all the medical matters treated in its columns." A medical man, in his individual capacity, might pursue and justify a certain

course of conduct, which he could not, as "the representative of the medical profession." The execution of all law demands the manifold concession of individual rights for the good of the whole and this discrepancy demands the enactment of some code, for the adjustment of which, all cases are to be referred.

Cholera of the Red Sea in 1890.

M. Proust presented to the Academy of Science a work on "Cholera of the Red Sea," which, during the year 1890, appeared at two points, viz., island of Camaran, and a little later at Mecca, at the time of the pilgrimages.

The following are the conclusions of the work, viz.:

1. The cholera at Camaran was brought thither by an English vessel, coming from India.

2. The cholera at Hedjas seems to have been imported by way of the sea.

3. Pilgrimages to Mecca are a perpetual menace to all Europe.

4. The measures prescribed respecting pilgrims going to Mecca have not prevented the outbreak of cholera; it is, therefore, necessary to render more effective the means hitherto employed.

5. The measures of protection adopted by the Council at Alexandria at the time of the return of the pilgrims, have this year prevented the cholera from reaching Egypt and Europe. It is highly important, not only to maintain this council, but to confer upon it still greater authority, and, indeed, to render it international. It is likewise important to increase the number of lazar houses (pest houses) of the Red Sea, and the means of sanitation and of disinfection.

Departures for Europe.

Dr. George W. Cale, a graduate of the College of Physicians and Surgeons of St. Louis, proposes soon to leave for the study of general surgery in Germany. He has the reputation of having been a faithful and conscientious student. Besides having lectured to the students of his alma mater for the last four winters, upon the subject of anatomy, we know also that he has enjoyed fine opportunities of observation and practice.

Captivated first by the attractions of his profession, he next became a captive to the charms of a most excellent young lady of this city, whom he will lead to the altar on April 8, and who will accompany him during his European sojourn. Both have our sincere congratulations and cordial wishes for the fullest measure of happiness in the future.

Dr. George A. Krebbs has also completed his preparation for professional study and observation in the great medical centers of Europe. He, too, is a graduate of the College of Physicians and Surgeons, of this city, and, with his friend, Dr. Cale, has been for several years assistant to Dr. A. C. Bernays. Both have ever acquitted themselves as diligent and painstaking physicians, and we trust their record abroad will be as creditable as it has been at home.

They are warmly commended to the confidence and courteous consideration of all with whom they may hold professional intercourse. We are happy in the consciousness that both these gentlemen have consented to be regular and prompt correspondents of the Review, keeping its readers informed of the latest and best thoughts and most approved methods pursued in the cities of the old world.

"Rush" Secures the Prize.

Information has just reached us to the effect that Dr. Senn has been elected Senior Professor of Surgery in Rush Medical College, Chicago. We most cordially congratulate "Rush" in securing the professorial service of this eminent surgeon.

The antecedents of Dr. Senn, having been so brilliant and so well deserved, we confidently predict for him a future, that we dare not express in words. Professor Senn, with his family, will soon as practicable, make Chicago his permanent residence.

The Daughter; Her Health, Education and Wedlock.

By Dr. William M. Capp, published by F. A. Davis, Philadelphia, is one of the must comprehensive and practical in details for the subject intended that we have ever reviewed.

It considers the duties and well being of mothers, the hope of the family,society and country,in all her relations from infancy to motherhood. If we were to be captious we should demur to the license of prescribing "ale and beer," the mother's dietary,as other aliments are better; and also the postponement of instructing the child in the mysteries of the alphabet till attained the age of nine years. Every mother, especially the young unsophisticated, will be greatly profited by its perusal if only its inculcations are adopted and put thoroughly in practice.

Etiology of Epidemic Goitre.

Messrs. Lustig and Carle (*De Bibliographie Medicale*) have examined the water which the inhabitants of the countries use, where epidemic goitre prevails, and their researches have demonstrated the existence of a very large number of bacteria. Among these bacteria they have uniformly discovered one that liquefies nutritive gelatine and which presents special morphologic characters. With the water suspected of producing goitre,

Messrs. Lustig and Carle, have made, in the countries exempt from epidemic goitre, experiments upon animals (horse, dog); and these have shown that water has indubitably the power of producing enlargement of the thyroid body.

These authors, however, announce that they have not yet conclusively satisfied themselves, that the water deprived of these microbes loses thereby the power of producing goitre.

"Corrections."

Corrections are always in order and we are grateful for that suggested by George F. Center, A.M., M.D., of Jacksonville, Fla.

From sources that we deemed authentic, we gleaned and published, in issue of March 28, p. 230, that the Ligislature of Florida had established three "Boards of Examiners." The doctor informs us it has but two—"regular and homœopathic." Practitioners of other faiths must therefore first receive authority from one of these Boards.

Our attention has been called to another inadvertent "*lapsus peunæ*" in the Review of April 4, p. 267, in respect to a specimen presented at the St. Louis Medical Society, by Dr. Dorsett. In the caption the word "speculum" appears, which should be *pessary*. The substitution of the word is evidently accidental, since in the sequel the word does not again occur.

MEDICAL ITEMS.

Berlin Letter.—Another short, but interesting letter appears in this issue of the Review, from Dr. Al. J. Kanne. From this it may be learned that it took the Germans but a short time to demonstrate the inutility of intubating the larynx in diphtheria.

A Treatment of Epistaxis.—Mr. Jonathan Hutchinson has made a note in the *Archives of Surgery* of a treatment of epistaxis which he avers has never failed of success in his hands, and he has had many very rebellious cases. It consists in plunging the patient's feet and hands into water as hot as can be borne.—*Boston Med. and Sury. Jour.*

The Way They Do at Vienna.—Late correspondence to the *Medical Record* rehearses the details of a sudden death upon the operating table—from the occurrence of an air thrombus, as was shown by the autopsy—following the operation for the removal of a goitre. It was at Billroth's public clinic, and the absence of measures which aid resuscitation was notable, however impossible of success their application might have been. Yet it was the events following, more than the "shadows before," which are unique, as will be illustrated by the following quotation: "A most unpleasant impression was made on all the foreigners present by this tragic spectacle, and one could not but be struck by the unshaken coolness with which the surgeon, after the dead body of his patient had been carried out, proceeded immediately to perform a goitre extirpation on a second case—this time with a happier result."—*Pharmaceutical Record.*

Maimed.—It is said there are in the United States about 350,000 persons who have lost one or both legs. Many of these lost their limbs during the war, but since that time the "railroad" has been the grand amputator, 90% of these amputations being credited to this cause, according to a correspondent of the *Times*, who affirms also, that of 4,056 cases of loss of the parts reported in the dailies, 3,500 were due to the railroad.—*De Bibliographic Medicale.*

Missouri Pharmacy Law.—This law has received some amendments, the leading features of which are: the number of commissioners is changed from three to five. Only registered pharmacists are permitted to dispense drugs. Proprietors are held responsible for the quality of articles they sell except when in original packages and for proprietary or patent medicines. Penalty for selling adulterated or fraudulent articles may be a fine of $100 and the striking of the name from the list of registered pharmacists. Prescriptions must be kept for five years and be produced in court, if so ordered, at any time. The sale or handling of intoxicating liquors is handled without gloves. Imprisonment, fine, revoking of license are the cheerful alternatives of such evildoers, but as that is not the class of people that our readers belong to, there is no need to publish it for their information. The board are given better opportunities to secure the enactment of the law than under the former one.—*Pharmaceutical Record.*

Morphine.—Morphine sometimes causes very disagreeable symptoms when taken by the mouth. This is owing to its action on the mucus membrane of the mouth, soft palate and throat, as the hypodermic method is not always appropriate or desirable. Billroth proposes to make use of the mucus membrane of the nose, which seems to be less affected, but rapidly absorbs the alkaloid. He says:

"The manner of administering morphia through the olfactory canal is simply by snuffing it up the nasal chambers in the manner and in the same way as snuff tobacco is used. You divide the dose intended in two equal parts, each part placed upon the end of the thumb and snuffed up into the nostrils. The membrane being very soft and delicate it constantly appears to absorb. I have tried it on myself on several occasions, and it seemed almost instantaneous absorption; no more than 15 seconds after the introduction I have blown my nose and nothing could be found in the secretion. However, in poor qualities of morphia the drug will not absorb as readily. In cases where the nasal chambers are in-

crusted and covered by dry secretion the cavities should be cleansed before administering; care should be taken not to snuff up to stroug to engulf in the throat. If the drug is of a poor quality it will produce sneezing, but the narcotic effect will be the same."—*Pharmaceutical Resord.*

Medical Organization in Japan.—The *Tei-I-Kwai Medical Journal* of Tokyo, Japan, November 22, describes in idiomatic language the establishment of a national society of the medical men who have studied their profession in America and Europe. It says: "The principal leaders in Tokyo caused themselves to start a medical association, for the object of which they have to gather all the medical brethren in every province of the Empire and to exchange their knowledges. The endeavor of them brought this scheme to born in April 1 under the name of the First Japanese Medical Association, the meeting was held for a week and was closed with every success. It was hoped to hold this Association in future once every four years." There are not more than 5,000 who have the knowledges above referred to, but they stand in the forefront of reform, "for, indeed, the reformation of Japanese medicine is the task of them, for this object they join to constitute medical societies, and respective society endeavors to publish their journal."—*Pharmaceutical Record.*

BOOK REVIEWS.

Sexual Neurasthenia (Nervous Exhaustion); Its Hygiene, Cause, Symptoms and Treatment, with a chapter on Diet for the Nervous. By Geo. M. Beard, A.M., M.D., formerly lecturer on Nervous Diseases, in the University of the City of New York; Fellow of the New York Academy of Medicine; Author of "Our Home Physician," "Hay Fever;" One of the authors of "Medical and Surgical Electricity" (Posthumous Manuscript). Edited by A. D. Rockwell, M.D., Professor of Electro-Therapeutics, N. Y. Post-Graduate Medical School and Hospital; Fellow of the N. Y. Academy of Medicine, and one of the authors of "Medical and Surgical Electricity." Third edition, enlarged, in one volume, crown 8 vo. Nearly 300 pages. $2.75. E. B. Treat, publisher, 5 Cooper Union, N. Y.

The philosophy of this work is based on the theory that there is a special and very important and very frequent clinical variety of neurasthenia (nervous exhaustion), to which the term sexual neurasthenia (sexual exhaustion) may be properly applied.

While this variety may be, and often is involved as cause or effect or coincident with other varieties—exhaustion of the brain, of the spine, of the stomach and digestive system—yet in its full development it can be and should be differentiated from hysteria, simple hypochondria, insanity, and various organic diseases of the nervous system, with all of which it had until lately been confounded.

The long familiar local conditions of genital debility in the male—impotence, and spermatorrhœa, prostatorrhœa, irritable prostate—which have hitherto been almost universally described as diseases by themselves, are philosophically and clinically analyzed. These symptoms as such do not usually exist alone, but are associated with other local or general symptoms of sexual neurasthenia, herein described.

The causes of sexual neurasthenia are not single or simple, but are complex; evil habits, excesses, tobacco, alcohol, worry and special excitements, even climate itself, are the great predisposing causes.

The subject is restricted mainly to sexual exhaustion as it exists in the male, for the reason that the symptoms of neurasthenia as it exists in females are and for a longe time have been understood and recognized. Cases analogous to those in females are dismissed as hypochondriacs, just as females suffering from now clearly explained uterine and ovarian disorders were formerly dismissed as hysterics.

This view of the relation of the productive system to nervous diseases is in accordance with facts that are verifiable and abundant; that in men as in women, a large group of nervous symptoms which are very common indeed would not exist but for morbid states of the reproductive system. (From Dr. Beard's introduction).

The causes and symptoms of forty-three cases are given, followed by a chapter on Diet for the Nervous, with treatment and formulas.

The International Medical Annual and Practitioner's Index for 1891. Edited by P. W. Williams, M.D., assisted by thirty-eight collaborators—European and American. 600 octavo pages. Illustrated. $2.75. E. B. Treat, publisher, 5 Cooper Union, New York.

The ninth yearly issue of this valuable one volume work is at hand; and it richly deserves and perpetuates the enviable reputation which its predecessors have made for selection of material, accuracy of statement and great usefulness.

The corps of department editors is greater than that of last year. Its numerous illustrations—many of which are in colors—make the Annual more than ever welcome to the profession, as providing at a reasonable outlay one of the handiest and best resumes of medical progress yet offered.

Part I. comprises New Remedies, together with a Review of the Therapeutic Progress of the Year.

Part II. is devoted to special articles on Diagnosis: the first on Deformities of the Hand, and Their Diagnostic Value in Nerve Lesions; the second, on the Character of the Sputum as an Aid to Diagnosis.

Part III., comprising the major portion of the book,

is given to the consideration of New Treatment; and is a retrospect of the year's work, with numerous original articles by eminent writers.

Part IV., and last, is made up of miscellaneous articles, such as Recent Improvements in Sanitation, Alcoholic Inebriety, etc.

BRANSFORD LEWIS, M.D.

HEREDITY, HEALTH, AND PERSONAL BEAUTY. By [illegible] Shoemaker, A.M., M.D. F. A. Davis, publisher, Philadelphia. Price, $2.50.

The author has presented us with a work of 422 pages, 8vo, monumental of its kind, elaborate, learned, comprehensive and the last three-fifths of it emminently practical. In the latter respect it would not suffer seriously if the first seven chapters, with the exception of the first, had been omitted (worthy of constituting a valuable distinct volume). He rightly speaks of the "barbaric stage of fried cooking" of the country. Chapter IX., Effects of Environment, etc , is one of especial interest, and X is worth particular study, "Grace the Crown of Beauty." Treatment in a hygienic aspect is given of skin, face, hands, feet, nails, hair, teeth, eye, nose, food, clothing, ventilation, digestion, all buttressed by a list of medicated soaps and a treasury of household remedies. It is highly commended.

The above books are for sale by J. H. Chambers & Co., 914 Locust Street, St. Louis.

FOREIGN CORRESPONDENCE.

BERLIN LETTER.

MEETING OF THE BERLIN MEDICAL SOCIETY.

BERLIN, March 19, 1891.

EDITOR REVIEW.—The meeting of the Berlin Medical Society of March 11 was very uninteresting the only paper worth reporting being that of Dr. Schwalbe, on The Results Obtained by O'Dwyer's Method of Intubation. The treatment was applied in ten consecutive cases of diphtheria. Nine died. In nearly one-half of the cases, the post-mortem revealed, besides the false membrane in the trachea, decubitus in the larynx, caused by the pressure of the tube. As a result of this experience, Dr. Schwalbe has discarded intubation.

In last night's meeting, the above paper was discussed. Dr. Rosenberg said: "Though intubation can never displace tracheotomy, it is a valuble adjuvant to the latter method of treatment, which it may frequently render unnecessary." He reported cases in which intubation was used after tracheotomy had been performed for stricture of the larynx. The patients were wearing O'Dwyer's tube while the tracheal wound was undergoing plastic operation. In these cases no decubitis could be discovered by laryngoscopic examination.

Dr. Gutman once more cautioned against carelessness in the administration of "oscarine" (acid cantharidate of potassium). He related the following cases in which renal irritation necessitated interruption of the treatment. One patient, after having received four injections (the last dose being $1\frac{1}{2}$ decimilligrammes), showed in his urine 6% albumen, hyaline casts and renal epithelium. In a similar case, less albumen, but likewise casts and epithelium appeared in the urine. In a third case (of far advanced pulmonary phthisis), complete anuria, lasting 24 hours, set in after the third injection. Afterward the patient passed albuminous urine, suffering strangury. Twenty-four hours latter patient died. Post-mortem revealed nothing pathological in the kidneys.

Dr. Renvers reported an experience, which disproves the assertion made by Koch, that non-tuberculous patients react after an injection of tuberculin only when the dose is large, and that the reaction then only consists in a slight elevation of temperature. A patient suffering with pyonephrosis was injected 2, 4, and then 6 milligram doses of tuberculin. After each injection, the patient reacted violently, having a temperature of 40°C. When 6 milligrammes were injected, patient suffered a chill, followed by cough and expectoration. Over the apex of the right lung, subcrepitant rales were heard, though none had been there prior to the injection. The sputum was examined for tubercle bacilli, but with a negative result. The treatment was stopped, and the rales disappeared. Shortly afterward the patient died. A careful post-mortem examination failed to reveal any tubercles.

AL J. KANNE, M.D.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, March 28, 1891, the President, L. BREMER, M.D., in the chair.

AUTOPSY ON THE BODY OF A CASE SUPPOSED TO HAVE DIED FROM LA GRIPPE.

DR. BREMER said Dr. Mulhall alluded to the death of a physician in this city, and intimated that he died from la grippe.

Having made the post-mortem, the speaker thought la grippe had nothing to do with his death. The clinical symptoms in this case were briefly as follows: The man attended to his business, visited a great many patients—as his practice was very extensive—when suddenly he was taken with general drowsiness, great malaise; he had to go to bed; soon became delirious and in this delirium, died. His whole disease lasted about two days. On making a post-mortem, he found, as the first lesion which presented itself, about 20 or 25 gall-stones in the gall bladder. On attempting to sound the ductus choledicus communis, it was discovered to be obliterated. Although this physician was only about 43 to 45 years of age, he had a liver in a condition,

which might truly be styled senile atrophy; and in size such as we expect to find in a child 12 or 13 years of age. The lungs were very much congested, filled with blood; they certainly would have sunk if they had been put into water. In the brain, the piamater was raised, there being exudations of a serious character. The kidneys were found to be in a state of acute parenchymatous inflammation; the cortex was of a diffused yellow, whereas the pyramidal substance seemed to be of normal appearance. There were no other changes. The principal changes were in the liver, the occlusion of the ductus choledicus and in the kidneys. Now how are we to explain the sudden death? The weak point in this man, while he lived, had always been the liver. He always felt more or less bilious; his stomach was very frequently out of order; and from a personal acquaintance with him, the speaker knew, whenever in the evening he would try to write a letter, of which he was very fond, or to read, he would go to sleep; there was great somnolence. The occlusion of the ductus choledicus communis induces the belief that this was really the chief trouble; for many years the presence of the calculi had produced a constant mechanical irritation, causing connective tissue proliferation, and, in consequence of this, stricture. So long, however, as the bile, which accumulated in the liver, could pass, at least in small quantities, so long life was possible. When, finally, the ductus choledicus communis closed entirely, poisoning, by the products of the secretion of the liver, was occasioned, namely, cholæmia. The cadaver looked extremely jaundiced. The poisonous principle in cases of gall duct obstruction has not yet been determined; is it due to the bile itself, the pigment, or some metabolic products of a poisonous character, re-absorbed or retained in the blood?

It is reasonable to suppose that there must be certain noxious products of metabolism, which not only have deleterious effects on the brain, similar to those of uræmia, and to other compounds which are believed to be active in producing it. In simple jaundice no such profound nervous disturbances are found. But in certain cases of liver disease, somnolence, even unconsciousness, and sometimes even spasms supervene; probably, there are some unknown products which accumulate in the liver, and lead to these grave disturbances. In this case almost all the epithelium of the entire cortex of the kidneys had been changed into fatty debris; there was a complete disorganization; so there is a possibility that not only there was cholæmia, but following this cholæmia there was a uræmia. As a rule, the precise cause of a person's death cannot be determined in a case of auto-poisoning; in poisoning by metabolic products, as in this case, there was double cause of death; retention of the bile and, also, an affection of the kidneys, the latter following the first.

The epithelium of the lungs, too, was in a state of fatty degeneration. So powerful is the poison referred to, which is the active principle in the process of cholæmia that all the epithelia in the body seemed to undergo this change. The speaker had seen two similar cases at the City Hospital, had heard their histories, and had made the post-mortem, and did not doubt they perished from a common cause. Complete obliteration of the duct is not of frequent occurrence, and is generally the result of constant and long-continued irritation of biliary calculi.

Dr. Bond said.—The case reported by Dr. Bremer is an interesting one; yet he could not concur with him in the conclusion, which he seems to have reached, that the complete obliteration of the ductus choledicus communis, necessarily leads to that degree of empoisonment of the general system that will produce death; for he had seen cases, in which the bile duct was completely closed, and yet the patient continued to live for months. A patient, a lady, was jaundiced exceedingly for nearly a year. The fæces indicated an entire absence of bile. She became very greatly emaciated, and ultimately died, as the result of exhaustion, from anæmia. A post-mortem revealed the presence of a gall-stone, quite as large as a quail's egg, lodged in the ductus choledicus communis, and on the proximal side of the bowel there was a complete closure, and no bile evidently had escaped for a long time; yet this woman continued to live in that condition.

The speaker recalled another case in which a very similar condition of things obtained, and a post-mortem was made. In that case three gall-stones were found, obstructing the duct; and in addition to the mechanical obstruction thus occasioned, an adhesive process had closed up the duct, entirely preventing the escape of bile. We possess comparatively little knowledge as to the physiology and pathology of the liver. But clinical facts justify the conclusion that affections of the liver are followed by poisonous influences or agencies, consecutive to affections of the kidney. We know very conlusively that certain conditions of the kidneys induce uræmia, a very fatal affection, and we are authorized in this case to conclude that the kidney trouble occasioned the death of the patient.

Dr. Bremer said but for the fact that, in at least one case, he had seen the same state of affairs in the kidney in a case of occlusion of the common bile duct, he would not have connected these two states together. But in the case cited at the City Hospital, there was a parenchymatous nephritis, just as in this case; therefore, he reasoned, a poison is retained in the system in consequence of obstruction of the gall-duct, which, under certain circumstances, will produce an acute parenchymatous nephritis. This physician had never evinced symptoms of disease of the kidneys before; this was an absolute acute affair. He had examined his own urine at various times, both chemically and microscopically. How long time may elapse, after the occlusion of the choledicus, before the death of the patient occurs, is of course very difficult to determine. A dog may live a long time, after the gall duct has been tied, in comparative comfort. But when we find, in such a case as Dr. Bond refers to, that the gall duct is closed by an im-

pacted gall-stone, we are not justified in saying that this condition had not existed for a month; it may have existed only a week, or a day or two; there is no telling. Nor can it, with absolute certainty, be asserted that here was a cholæmia, and that the cholæmia produced the parenchymatous nephritis. The lungs, certainly, were not attacked by any noxious disease; because no micro-organisms, whatever, were found; whereas, in la grippe, which always attacks the lungs, pneumococci in abundance are always found; but hæmorrhage had taken place in them, and fatty degeneration of the endothelial cells of the capillaries was found, which latter gave way and hopeless hæmorrhage ensued. This identical state was found in the bladder; ecchymoses throughout the mucous membrane; the poison had corroded, as it were, the cells and capillaries, and in consequence, hæmorrhage had taken place. Therefore, there is great probability that a cholæmia may give rise to acute parenchymatous nephritis. It is very hard to say in this case, to what extent the vicious metabolic products were circulating in the system; how much of it was retained. Often in chronic Bright's disease, a chronic poisoning is manifested, with uræmic symptoms; a patient will feel tolerably comfortable, until he is suddenly thrown into spasms and coma, from which he died; it is the accumulation of the poison, its continued action, and the constantly increasing debility following this poisoning, which finally occasions death.

Dr. Pinkney French, being called upon to make some remarks, said he was very much interested in the case reported by Dr. Bremer, and in the question, whether or not an obstruction of the liver could cause the absorption of some kind of toxic material that would occasion inflammation of the kidney that the doctor describes. On last Saturday evening a pathological specimen was presented, which, to all appearances, and in accordance with the statement of the pathologist, Dr. Bremer, was sarcoma. It was removed from a negro, about 48 years of age. The speaker happened to be one of those at the City Hospital, who passed judgment originally on the patient, and was inclined to believe it was a case of tuberculosis. A specimen was submitted to Prof. Summa, who reported it to be one of tuberculosis. Now we have a subsequent report, two three or four months after the death of the patient, the lung, kidney and other organs produced, and the disease is pronounced to be sarcomatous in character.

Dr. Johnston said.—It so happens that during the last fifty years, one hundred cases have come under his observation; the cause inducing this disease, which we term gall-stone, has not been touched upon. What leads to the inspissation of the bile in the duct? Is it a disease of nutrition commencing there—a deficiency of nutrition? May it not be a deficiency of water, or of some element which should be developed in the physiology of the nutrition of the blood corpuscle itself.

Dr. Hurt thought that the success that physicians formerly had in their practice with the salts of mercury, rather proves the correctness of the present theory of the germ origin of disease, and consequently suggests the propriety of returning again to the method of treating disease in a great many diseases; only instead of administering the proto-chloride, we should now administer the bi-chloride. It has long been supposed that the benefit, derived from the proto-chloride, was due to its conversion into the bi-chloride in the system; and that the portion, not converted, was not absorbed, but produced a negative action, whereas bi-chloride does not. The speaker had never quite abandoned the idea that calomel was entirely useless; nor had he quite and altogether abandoned the idea and practice of venesection.

SOCIETY NEWS.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

National Associations.

American Academy of Medicine, Washington, May 2 and 4.

American Medical Association, Washington, May 5, 6, 7 and 8.

National Association of Railway Surgeons, Buffalo, N. Y., April 30 and May 1.

Florida Medical Association, Pensacola, April 14 and and 15.

Medical Society of the State of Tennessee, Nashville, April 14, 15 and 16.

Medical Association of the State of Alabama, Huntsville, April 14, 15, 16 and 17.

Medical Association of Georgia, Augusta, April 15, 16 and 17.

Iowa State Medical Society, Waterloo, April 15, 16 and 17.

Medical Society of the State of California, Sacramento, April 21, 22 and 23.

Medical Association of Montana, Helena, April 24 and 25.

Medical and Chirurgical Faculty of Maryland, Baltimore, April 28, 29 and 30.

Texas State Medical Association, Waco, April 28, 29 and 30, and May 1.

State Medical Society of Arkansas, Hot Springs, April 29 and 30, and May 1.

Medical Society of the State of Washington, Seattle, May 6, 7 and 8.

Missouri State Medical Association, Excelsior Springs, May 12, 13 and 14.

Indiana State Medical Society, Indianapolis, May 13, 14 and 15.

Kansas Medical Society, Wichita, May 13, 14, 15 and 16.

Illinois State Medical Society, Springfield, May 19, 20 and 21.

West Virginia State Medical Society, Fairmount, May 20, 21 and 22.

INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

This Congress will hold its seventh session August 10 to 17, 1891, its aim being to awaken public interest in the progress of Hygiene and Demography (i. e.) the study of the life conditions of communities from a statistical point of view; to afford persons interested in these subjects an opportunity of meeting with the object of advancing this progress; and by conferences and debates to elucidate questions relating to Hygiene, Demography and Public Health.

The governments of all countries, municipalities, county councils, and other provincial administrations, public health authorities, universities, colleges, all societies, which are occupied in the study of the sciences, more or less connected with Hygiene, are invited to co operate and appoint delegates to represent them at that Congress.

Representative for the United States is Dr. J. S. Billings, Washington, D. C.

GOLDEN BELT DISTRICT MEDICAL SOCIETY.

The Golden Belt District Medical Society met at Topeka, Kansas, April 9, 1891, at National Hotel.

President.—P. Dougherty, M.D., Junction City.

Vice President.—W. N. King, M.D., Abilene.

Second Vice President.—T. L. Harvey, M.D., Council Grove.

Secretary.—F. B. Broome, M.D., Saline.

Treasurer.—T. N. Guron, M.D., Chapman.

ROLLA DISTRICT MEDICAL SOCIETY.

The Rolla District Medical Society will hold its next regular meeting at Cuba, Mo., April 23 and 24. We are in receipt of the comely circular and inviting programme of which J. D. Carpenter, M.D., is President, and Sam'l B. Rowe, M.D., Secretary. We have on several occasions met with, and enjoyed the sessions, and urge all within its bounds, especially, to attend and largely participate.

TENTH INTERNATIONAL MEDICAL CONGRESS.

The members of this Congress are notified that the first volume of the transactions is nearly completed. It contains the proceedings of the general sessions. The foreign members who desire to receive it by post are directed to address the publisher, Aug. Hirschwald, 66 Unter der Linden, Berlin, Prussia, inclosing 23 cents.

At the suggestion of Dr. William Perry Watson, Secretary of the State Board of Medical Examiners of New Jersey, Dr. Rauch has called a meeting of one or more representatives of the various medical licensing boards in the United States, to be held in Washington, D. C., on May 6, during the meeting of the American Medical Association, in order to effect a permanent organization and to make rules and examinations as nearly uniform as possible. Licensing boards now control medical practice in 21 states. It is expected that much good will come of this meeting.

Congress of American Physicians and Surgeons.—The meetings of the Congress of American Physicians and Surgeons will be held in Washington from 3 to 6 p.m. September 22, 23, 24 and 25, 1891.

William Pepper,
Chairman of the Executive Committee.

Medical Meetings.—The St. Louis Medical Society holds its meetings every Saturday evening at 8 o'clock p. m., to which medical men are cordially invited.

Guhman, M.D., Rec. Secretary. L. Bremer, M.D. President for 1891.

HEALTH RESORTS, MINERAL WATERS, ETC.

THE APOLLINARIS SPRINGS.

The Chicago *Inter-Ocean* quotes the following from the London *Times:*

Apollinaris water is as familiar in millions of mouths as any household word. In the English translation, evidently made in Germany, from a German book on the mineral springs of the Ahr Valley, I find it stated that the mineral water from "the fountain Apollinaris is counted among the most luxurious drinks." Yet others than the spoiled children of luxury can afford to buy it, as the water is cheap as well as good, and the moderation of its price is one reason why the demand for it is great and increasing. It is not unworthy of note that an English company has the credit of having brought Apollinaris within the reach of all water drinkers. The company began its operations in 1873. The spring itself was discovered twenty-two years before.

There is a legend connected with nearly every mineral spring of note. In many cases it is very difficult to ascertain the acute facts or to separate fact from the mass of fiction. That the thermal springs of Bath and Teplitz should have been discovered by pigs, and those of Carlsbad by dogs may be true, but the evidence is of doubtful value. There is no question, however, either about the way in which the Apollinaris Springs was found, or as to the place after which it was named. Herr George Cruzberg, who lived at Ahrweiler, had a vineyard on the left bank of the River Ahr, at a short distance from the village of Neuenahr. He noticed that the vines would not flourish on a particular spot,

and learned that carbonic-acid gas issued from the ground there. An eminent geologist, Prof. Bischof, of Bonn, was consulted as to whether anything could be done in the matter, and he suggested that search should be made for a mineral spring, which might prove quite as remunerative as the most productive vines that the earth could produce. Accordingly a well was sunk, and at the depth of forty feet a spring was reached which rose to the surface with a force and effect of a small Icelandic geyser. This occurred in 1851. The Apollinariskirche is not far distant from the spring, which was named after it.

Chemical analysis showed a close resemblance between the Apollinaris Springs and those at Selters and Ems, while in one respect it differed from any one of those which were then in high repute. This consisted in its containing such an extraordinary proportion of carbonic acid as to cause the water to boil upward as if it had been forced from below under strong pressure. The volume of gas is so great that it is dangerous to approach the spring on a windless day. More than one fatal accident has been caused by approaching the springs and inhaling the gas. At the outset it was found difficult to bottle the water. However, a means was devised for doing so.

I have long had a desire to visit the spring, to drink the water on the spot, and to see the arrangements for bottling and exporting it, but that desire has only now been gratified. The English company, which has enjoyed the exclusive right to bottle and export the water since 1873, has resolutely objected to make the place one where visitors might enjoy a new sensation, and by their presence impede the operations. Besides, many precautions have to be observed lest a fatal accident might happen through inhaling the carbonic-acid gas with which the air near the spring is heavy and deadly. Birds that alight near it die almost immediately. I saw three dead lying within half a yard of the spot. The English managing director, having kindly made an exception in my favor, I have now examined everything that is to be seen at the Apollinaris Springs; I have drunk the water as it issues from the source, and I watched the process from the moment the water is pumped from the spring till it is bottled, corked, labled, and packed for transmission to all quarters of the globe. The operations are many in number, and are carried on with an attention to detail which is beyond praise. Many difficulties have had to be surmounted, and the ingenuity displayed in overcoming them is highly creditable to all concerned.

The problem which had to be solved was how to bottle the water in such a way that all the carbonic acid gas, which makes it sparkle, should be retained. As the temperature of the spring is 68° F., the tendency of the gas is to fly off on reaching the surface, and it is owing to the quantity of gas escaping where the spring raises from the ground that the surrounding air is mephitic. Without entering into mechanical details, I may concisely state that the process adopted consists in conducting as much of the gas as can be collected at the surface of the water to chambers, where it is compressed. The water is drawn from a depth of fifty feet below the surface and is elevated into tanks above the bottling house. This water and the natural gas are then brought together and mixed before entering the bottles, the result being that the bottle water is not only as pure, but as gaseous as the same water is far down in the rock through a fissure in which it ascends. Moreover, a part of the carbonic-acid gas is forced under pressure in each empty battle so as to expel the common air before the water enters it, and thus the drinker of the bottled water is certain of obtaining the water in its purely natural state.

It is scarcely necessary to explain, I think, that artificially ærated waters contain carbonic-acid gas, but this gas is not a product of the chemistry of nature. There is no difficulty in making it; the puzzle is how to obtain it as pure as it is in its natural form. The artificial gas can be washed, and the manufacturers of the best ærated waters take every precaution to insure the purity of the beverage which they supply; yet natural chemical processes are the only perfect ones, and the popularity of Apollinaris water is chiefly due to its irreproachable character. Though the water itself be so good, and the method of bottling is so complete, yet other things have an importance which is almost paramount.

The empty glass bottles are placed neck downward on a revolving table, and a stream of water is repeatedly forced into each under high pressure as the table moves round. A woman is stationed at one side of the table to watch each bottle, when empty and before being taken off, and see whether any impurity remains. As an electric glow light is behind the bottle the slightest speck in the glass can be detected by her at a glance. The stone bottles are kept filled for twenty-hour hours, and if any leakage is perceptible they are broken up, and they are repeatedly washed before being filled with mineral water. Though the water forced into them is the same as that in the glass bottles, yet, as they cannot be corked with the same lightning rapidity, a portion of the gas escapes, and thus the water when poured out of them is less sparkling.

A few statistics will probably have greater attraction for those who have read what has been written; indeed, the figures in this case are more eloquent than any phrase. It was in 1873 that the Apollinaris Company began operations, and that year the number of glass and stone bottles filled and exported was a little uuder 2,000,000. Last year the number was nearly 16,000,000, and orders have been given for a still larger supply of bottles in expectation of an increasing demand next year. The corks used last year weighed fifty-seven tons. These figures are gigantic, and were I not certain of their accuracy I should not give them. I was quite prepared for hearing that the total amounts were extraordinary, as I took pains to estimate the speed at which the bottles were filled during my visit, and found that the filling went on at the rate of 80,000 a day. Four hundred and fifty persons are engaged in the several operations.

The question may be put by others which I put after visiting the springs: "Should the demand continue, can the supply keep pace with it?" Careful tests have been made, which demonstrate that the existing supply is adequate for filling 40,000,000 quart bottles yearly. When the demand is in excess of these figures, then the Apollinaris Company may have to sink a second well. It is quite clear, however, that the Apollinaris Spring yields enough water not only for present requirements, but also for a future which is still remote.

CLIMATE OF SOUTHERN CALIFORNIA.

The subject of climate, in so far as it refers to Southern California, is constantly increasing in interest, and is consequently being more carefully studied.

The climate of Southern California is not a unit. We have almost as many climates as we have localities, though there are many features common to all sections. Below we present two meteorological summaries for 1890, one prepared by Hugh D. Veil for Santa Barbara, on the coast; and the other compiled from the United States signal servic reports for Los Angeles, eighteen miles from the coast. They will repay careful study:

Santa Barbara.

MONTHS.	Mean temperature of each month	Mean temperature of warmest day	Mean temperature of coldest day	Monthly rainfall—inches	Hourly movement of winds—miles	Relative humidity	Clear days in each month	Fair days in each month	Cloudy days in each month
January	48.4	55	43.5	5.32	3.6	69	20	5	6
February	52.6	68.2	45	2.96	3.7	66	19	2	7
March	55.6	61.5	50 3	1.10	4.2	65	18	4	9
April	56.6	69.8	51.8	0.31	3.2	76	13	4	13
May	60	75	53.7	0.18	3.4	75	11	5	15
June	62.4	74.5	56.2	0.06	3.4	72	21	2	7
July	67.3	71.3	63.5	....	3.6	73	29	1	1
August	67.9	83.3	62.5	....	3.4	75	19	7	5
September	66.5	77.3	62.7	1.50	3.0	79	15	7	8
October	64	75.5	54.3	....	2.7	70	26	5	0
November	63.3	72.5	52.5	0.48	2.6	53	28	1	1
December	58.4	65.0	52.5	3.53	2.9	64	19	4	8

The highest temperature was 98°, and the lowest 33.5°.

The number of clear days in the year was 238, of fair days 47, and of cloudy 80.

The mean temperature of the year was 60.2°.

On 41 days during the year the temperature arose about 80° in the warmest part of the day, and on 6 it fell below 35° at night; while there were but two nights when it did not fall below 65°.

There were 21 days when the rainfall was one-tenth of an inch; but only 8 that could be called rainy.

The mean relative humidity was 70, and the average velocity of the wind 3.3 miles an hour; while the greatest movement in any one day was 349 miles, or less than 10.5 miles an hour.

Los Angeles.

MONTHS.	Mean temperature of each month	Mean temperature of warmest day	Mean temperature of coldest day	Monthly rainfall—inches	Hourly movement of winds—miles	Relative humidity	Clear days in each month	Fair days in each month	Cloudy days in each month
January	49	58	44	7.83	4.0	70	10	13	8
February	54	68	46	1.36	3.5	66	15	9	4
March	58	67	50	.66	4.1	64	13	13	5
April	59	74	54	.22	3.4	76	6	20	4
May	63	79	58	.03	3.6	73	5	18	8
June	68	88	59	.02	3.8	66	9	21	....
July	73	80	68	...	3.3	69	20	11	....
August	73	82	66	.03	3.5	73	10	20	1
September	71	79	66	.06	3.2	72	12	12	6
October	68	80	56	.03	3.1	61	25	2	4
November	66	79	52	.13	3.7	40	25	4	1
December	61	68	54	2.32	3.7	56	14	12	6

Highest temperature, 105°.
Lowest temperature, 34°.
Mean temperature of the year, 63.5°.
Clear days, 164.
Fair days, 154.
Cloudy days, 47.
Days temperature above 80°, 118.
Days temperature below 35°, 4.
Days when temperature did not fall below 65°, 12.
Hourly movement of wind, mean, 3.6.
Mean relative humidity, 65.5.

The South California Pract.

DOCTOR, READ THIS.

A fine Lithia spring has been known for some time at a little hamlet called Lithia Springs, in Douglas county, Georgia. Recently an analysis has revealed the fact that it is the only spring known to science which contains Bromide of Potassium and Magnesia; this is combined with Lithium, Strontium and Iodide of Magnesium. The effect of this water is both a tonic and sedative, and in the army of nervous cases it gives promise of being a remedy of wonderful power. Theoretically a natural combination of the Bromides with Lithia and the Iodides would be a remedy of great value in a large number of cases. Practically, it has more than fulfilled these expectations, and although this water has been very recently introduced, there are many reasons for supposing that it will become the most widely

used of any medicinal water known. Our personal experience in three cases of Alcoholic Rheumatism and Neuralgias is very satisfactory so far, and we hope to announce in the future that at last a remedial water has been found which can be given to all nervous exhausted cases with great certainty as to the results. As the Hot Springs of Arkansas is the great resort of rheumatic and syphilitic cases, this Bromide Springs of Georgia may became the great resort of neurotics of all kinds. It is perfectly clear that under any circumstances this water will become a popular remedy, and these springs a famous resort in the near future.—T. D. Crothers, M.D., Hartford, Connecticut, in *Quarterly Journal of Inebriety*, for April, 1890.

SELECTIONS.

THE BEEF TEA DELUSION.

BY E. B. WARD, M.D , LAINGSBURG, MICH.

There are certain fallacies in the practice of medicine which any one can see through, but which have been handed down from one generation of doctors to another until they came to be accepted and even taught as truths.

Perhaps there is not one of them more generally adopted, or more harmful, than the beef tea delusion, and this was just now brought to my mind by reading in a late medical magazine "Prof. Keen's Method of Making Beef Tea." His method is much the same as was taught me thirty-five years ago, and which, even then, my juvenile medical mind revolted against to such an extent that I have not given beef tea for over thirty years. I substituted milk, which even so recently as that was thought by good authority to be a dangerous pabulum in low stages of fever. My cases of death, however, were fully as rare, and, it seemed to me, more rare than with patients otherwise managed. Here is Prof. Keen's method:

Select round or rump, as it is useless to spend money for choicer beefs when this is just as good for the purpose. Take one pound, chop it into fine pieces about the size of the end of the little finger, and soak in one pint of cold water for two hours. Then boil the whole, strain and add enough water to make a pint. Add sufficient quantity of salt, pepper, etc., to suit the taste. The object of soaking in cold water is to get the essence out of the beef. If warm water is used a coating of albumen coagulates on the surface of the beef, thus preventing the essence from escaping.

What a pity that a man assuming to be a teacher should so delude the rising generation of doctors! He is only one, however, of many, perhaps. Now let us try to make some of this beef tea. (I presume Prof. Keen never made a drop of it.)

We take a pound of finely cut beef and pour a pint of cold water on it, and let it stand two hours—while we write about it. The water is not near sufficient to cover the beef, but with occasional agitation we get at the essence. At the end of two hours we find the meat surrounded by a reddish-colored liquid. Put a little of this fluid into a test tube, and hold it in the flame of a spirit lamp. You see it coagulates to the extent of one-fourth, perhaps. What is that? Well, never mind now, we are going to make some beef tea. Now we proceed to "boil the whole." He doesn't say how long, and it doesn't make much difference so long as the water holds out. Now "strain and add sufficient water to make a pint." You perceive that it is too strong and has to be diluted. Let us take a little of this concentrated essence in a test tube and examine it. Here is a translucent fluid with a bland taste, a neutral reaction, and a slight odor of beef. By closer inspection you observe little fine particles of sediment slowly settling. This, Pavy says, should be stirred up and given with the tea, but as it is only particles of coagula which have skipped through the strainer, let us have it out. If part of it ought to come out, it all should. So we will filter this liquid, and you observe we have a limpid, almost colorless fluid left, and a slight deposit on the filter. What is it? Well, we shall see shortly. Now take a little of this liquid in a test tube and drop a few drops of nitric acid into it. There is no precipitate formed, so we know that there is no albumen or fibrin in it. What is in it? Well, there is a little saline matter and —a world of disappointment to any one who tries to sustain life with it. That is about all. Why—well, the thing is too absurd to talk about. Common well water containing the average quantity of bacteria is more nourishing.

Thousands of sick people have been starved to death on this diet, and I want to enter my solemn protest against it before it is everlastingly too late. What you want is the albumen and fibrin of the meat in a condition requiring little digestive power, and that will be readily assimilated. The moment you coagulate these ingredients by heat you render them practically indigestible. These, however, by this process are mostly strained out, and the fluid left is inert, or nearly so.

Good milk is preferable always, but if you must give beef tea, never boil it. Liebig says that 120°F. is the highest temperature to which it should be subjected. It is not very inviting in its general aspect, but it holds in solution the ingredients that you want, and which are rendered useless for a weak digestion by boiling. Liebig's plan is to add a little hydrochloric acid.

Perhaps there is nothing in the whole round of dietetics, however, that holds so much real needed food in a given space as good, rich milk punch—teetotalers to the contrary notwithstanding.

IS "PARATALOID" OF UNIFORM STRENGTH?

Dr. Andrew H. Smith writes, February 6, 1891: A recent experience leads to the question whether different

speciments of Koch's fluid have necessarily the same strength. A patient at the Presbyterian Hospital, having pulmonary phthisis, was inoculated with gradually increasing doses until, at the tenth inoculation, 3¾ milligr. were employed. The reaction from this dose, as from all the preceding doses, was objectively almost nil, although subjectively there was slight malaise. Improvement in the physical signs was noted after five or six inoculations. The eleventh inoculation consisted of 4½ milligr., and was made with a new specimen of parataloid just received from Berlin. The reaction began eight hours afterward, and attained its maximum in four hours. It was excessive, not to say alarming. The temperature reached 104½° F., and the pulse 150. The whole chest was filled with moist rales; there were cyanosis and drowsiness. In the course of four hours more the temperature had declined to 102° F., and from that point it gradually sank to normal. The rales persisted for twenty-four hours longer, and then disappeared. The case was one of incipient phthisis, with indistinct physical signs, and with no elevation of temperature, and but for the presence of bacilli the diagnosis would have been doubtful. The lymph first employed produced the usual reaction in other patients. Inasmuch as the active principle of the lymph is the product of a vital process of which there can be no definite measure, it is hard to see how the conditions under which it is produced can be known to be uniform. Not being a definite chemical substance, parataloid cannot be subjected to quantitative analysis. It seems, therefore, that its strength can be determined only by experiment, and that great care will be required in changing from one specimen to another.—*Med. Record*, February 21, 1891.

CEREBRAL TUMORS.

Dr. P. C. Knapp, in the *Boston Med. and Surg. Jour.*, January 8, 1891, says Oppenheim reports twenty-three cases of tumor in the cerebrum, with a careful analysis of the symptoms. Eighteen of these were gliomata or sarcomata, three were cancerous, one tubercle, and one gumma. Only striking cases in adults, however, are admitted to the hospital. In three cases a diagnosis of tumor was not made, and in three others it was at first doubtful. Oppenheim lays great stress on the importance of frequent examination of the eyes, even up to a short time before death, for choked disc may be a late symptom; he also distinguishes between choked disc and neuritis. The changes in the nerve are of the utmost importance in the diagnosis, and are of very frequent occurrence. In nephritis, however, the ophthalmoscopic picture may be that of neuritis, the retina showing no changes. In such cases, where there is uræmia or cerebral hæmorrhage, with a negative urine, the diagnosis may be very difficult. He holds that neuritis or choked disc is absent only in those cases where the intra-cranial pressure is only slightly increased. Next to changes in the optic nerve, stupor and somnolence are of great value in diagnosis. It is sometimes difficult to keep patients awake long enough to answer questions. Oppenheim then analyzes the cases to learn how far local symptoms can be relied on for diagnosis. In twelve cases there were aphasic symptoms; in nine of which the left temporal or frontal lobe was involved. An exact focal diagnosis could not be made from the symptoms, however, as the seat of the growth did not correspond to the particular type of aphasia, and some of the tumors were in the basil ganglia. In two cases the tumor was in the right hemisphere, and in one of these the patient had become left-handed at the age of seventeen, which raised the interesting question as to the possibility of the transfer of the speech center in youth. The same may be said of the value of motor symptoms in diagnosis. In a few cases the new growth affected the precise center correspondiug to the disturbance of motion, but in others the tumor proved more or less remote from the center, or deep down near the basal ganglia. With the uncertainty that still obtains in regard to the localization of the sensory centers, it is obvious that sensory disturbances give no more exact information than the motor. Local headache is an entirely untrustworthy indication of the position of a tumor, but localized tenderness on percussion has greater value. In four of these cases was a more or less accurate focal diagnosis possible, and operative interference could have been undertaken—about 17%. In view, however, of the uncertainty that still obtains in diagnosis, of the limited success that recorded operations thus far show, and of the small percentage of cases that can be operated on (it must be remembered that, in this paper, Oppenheim deals only with tumors of the cerebrum itself), he considers that operative interference has a very limited field.

HOW GALLS GROW.

Prof. Traill, the Aberdeen professor of botany, in an off-hand talk before the Pharmaceutical Society, at its London evening meeting recently, said:

Speaking generally, there are over a hundred different kinds of galls. They grow chiefly on the oak; but comparatively few are found in commerce, because it is the few only that contain a sufficient amount of tannic and gallic acids to make their collection profitable. Still, nearly all contain these acids. Chinese galls are formed by a different group of insects from those of the oak. As to oak galls, nearly 100 kinds are described, and they are mostly formed by the puncture of the gall fly, a species of hymenoptera belonging to the Cynipedæ. A few, however, are produced by gall-midges—a two-winged insect, like the mosquito. It is at the end of a spring or in May that the leaves are punctured by the insects. The catkin of the oak is also touched, the galls formed being like red currants, and are soft, spongy, and sappy; but generally galls become

hard, and in the center is found the grub, or larva, of the insect in a single cavity. That applies in some cases; it is different in the oak-apple, where there is a number of holes, each with its grub. These grubs it is which make the galls grow. Unhappily other insects find a lodgment for their grubs in the galls, and these feed upon the substance, and do not assist in the growth, while there are also parasites which destroy the gall-grub. One peculiar thing about the gall-fly is that it is a subject of dimorphism, that is, there are two kinds of the same species, one producing galls in the spring, the other in the autumn. The galls are dissimilar, and so are the larvæ—facts which have given rise to a great deal of confusion. There are ten or twelve British species which are known to be dimorphic. Generally, it may be that each fly, each tree, and each season gives rise to its own kind of gall, and even the depth of the puncture determines the nature of the gall.

Chinese galls differ very materially from oak galls. The insect which produces them is an aphis, or green fly, which attacks the rhus and other plants. Unlike the gall-fly of Europe, it not only deposits its eggs in the puncture, but it gets inside the gall itself, and continues to live on the juice of the plant as long as life is is given to it; and that is why the interior of Chinese galls contains such a profusion of insect remains.

Besides these galls, Prof. Traill mentioned a great many others which are of no pharmaceutical interest, but have a bearing upon the subject. He said it is difficult to define what a gall is, and it is impossible to say exactly how they are formed. In fact, the whole subject offers a splendid field for research to those who have a liking for that sort of thing. There is a great deal regarding the pathology of the plants and of the insects still to be worked out.—*National Druggist.*

TWO CASES OF POISONING FROM SMALL AMOUNTS OF ATROPINE.

For a lad of 12 years, Dr. Owens prescribed two or three drops of a solution containing two grains of atropine to the ounce of water to be instilled into the eyes three times within an hour on a Thursday morning, and again three times during that day, three times during Friday, and once on Saturday. Of these ten instillations the last two were omitted by his mother, as the boy seemed strange on Friday afternoon. When seen by Dr. Owens on Saturday he had all the symptoms of atropine-poisoning, staggering, unsteady gait, dryness of throat and tongue, picking at imaginary objects, muttering, smiling, and occasionally laughing outright to himself. He could be aroused for a few moments so that he would answer questions, but soon relapsed. The face was slightly flushed, there was no rash, the pulse was small and rapid. Pupils were only moderately dilated, and responded but slightly to light. In a few days the patient was all right.

The second case was that of a remarkably healthy gentleman of seventy-three. In order to see if his cataract was mature, up to the periphery, two or three drops of a two-grain-to-the-ounce solution were instilled three times in about twenty minutes. The pupil dilated readily, but after finishing the examination he spoke thickly and did not answer questions readily. He got up to walk and fell back in the chair, and soon became almost unconscious. Paralysis was so complete that he was quite helpless, and had to be carried to the carriage, his face becoming suffused and the body covered with an erythematous rash; the pulse could scarcely be counted.

These cases are of interest, first for the small quantity of the drug that each case produced such severe effects; secondly, the different toxic symptoms produced In the old man's case paralysis came on rapidly and was complete, whereas in the younger patient the paralysis was less marked, the tetanic symptoms being most prominent, coming on eighteen hours after.—*Boston Medical and Surgical Journal.*

THE EMPLOYMENT OF PILOCARPINE IN CERTAIN AFFECTIONS OF THE EAR, AND THE ABUSES OF THIS REMEDY.

The favorable results obtained in a series of cases of severe eye affections, particularly of acute irido-cyclitis, hæmorrhages into the anterior chamber of the eye and opacity of the vitreous body, induced me in 1879 to give this remedy a trial, selecting, to begin with, several cases of labyrinth affection of an undoubtedly syphilitic nature. The *rationale* of this measure was that in virtue of the rapidly occurring change of matter the reabsorption of unorganized exudation products might be brought about. The results of this experiment were so satisfactory that at the second Otological Congress at Milan in 1880 I was able to recommend a continued trial of this method to my colleagues in cases of recent affections of the labyrinth. Since that time I have employed subcutaneous injections of pilocarpine in every variety of recent and chronic affections of the labyrinth, the results obtained by myself and others (Moos, Lucae, Wolf, Pollak, Barr) being in several instances so favorable that the value of muriated pilocarpine in labyrinth affection must not be under-estimated. I have been in the habit of using a 2% solution, two drops of which are injected subcutaneously in the forearm, and the dose gradually increased a drop at a time to eight. Following rapidly upon the injection there is a considerably increased secretion of saliva and sweat, which ceases after the lapse of from thirty to forty-five minutes. Rarely it is accompanied by disagreeable symptoms, such as nausea, vomiting, giddiness, fainting, collapse, spasm of the bladder, which can be antagonized by taking from two to three drops of atrop. sulphurici 0.03, aqua destillata 10.0. The injections are to be made daily. If after the lapse of a fortnight the use of this remedy does not produce an improvement in hearing it must be regarded as ineffectual, and be aban-

doned. But if, on the other hand, an early and distinct improvement in hearing can be observed, the injections should be continued as long as there is a progressive increase in the faculty of hearing to be elicited upon examination. The period in which the maximum of the hearing distance is attained varies from six to forty days. It is to be noted that the increase in the hearing power is rarely regularly proportional, since it is usually most rapid in the first week or fortnight, while in the subsequent course of the treatment it progresses very slowly. In rarer cases the reverse is true, the hearing power at first increasing slowly, and later more rapidly.

Vacillations in the hearing distance are not infrequently observed in the course of treatment, a rapid improvement of several days being promptly followed by a rapid diminution of it, lasting also for some days. The use of subcutaneous injections of pilocarpine, which was at first limited to syphilitic diseases of the labyrinth, was extended later also to those cases of deafness which were dependent upon affections of the auditory nerve apparatus. This proceeding was indicated by the rapid development of deafness apart from any discoverable anatomical damage in the middle ear, and confirmed by the result of the examination with the tuning-fork, the latter affording, I consider, important indications for the employment of pilocarpine. If the examination with the tuning-fork proves that in a case of extreme deafness the sound is heard perceptibly longer opposite the ear (air conduction) than from the mastoid process (positive experiment of Rinne); also that low tones are better perceived by air conduction than high ones; and lastly, if there is a history of symptoms pointing to the implication of the labyrinth, such as giddiness or total inability to hear the ticking of a watch through the head bones, then the existence of an affection of the labyrinth is very probable, and it is in such a case that the subcutaneous injection of pilocarpine should be employed. I use but rarely subcutaneous injections of pilocarpine in certain forms of acute inflammations of the middle ear.

In the first of my works mentioned below I have cited several cases of acute inflammation of the middle ear in which perforation had not taken place. Where a protracted local treatment failed to produce reabsorption of the hardened exudation products lying in the cavity, and where after three or four subcutaneous injections of pilocarpine a constant improvement could be observed, the effect must be referred to the speedy solution and absorption of such exudation products. In like manner the subcutaneous injection of pilocarpine is to be recommended in those cases of acute suppuration of the middle ear in which perforation of the tympanic membrane has occurred, and in the course of which deafness supervenes, dependent upon some complication of the labyrinth.

Within recent years I have used muriated pilocarpine locally in affections of the labyrinth and the middle ear, injecting from six to eight drops of a 2% warm solution through a catheter into the eustachian tube and cavum tympani. When pilocarpine is thus employed in the above-mentioned concentration and quantity no unpleasant results supervene; it is only in rare cases that salivation and abundant diaphoresis are observed, and these soon after injection. In chronic catarrhs of the middle ear I inject pilocarpine into the tympanic cavity, particularly in those cases where the power of hearing is distinctly improved after inflation of the middle ear, and where a slight swelling in the eustachian tube can still be discovered upon auscultation. The object of the local application in these cases is to bring about a slight reaction in the mucous membrane of the middle ear, and in this way to cause the absorption of inflammatory products. And, as a matter of fact, in some particular instances the improvement of hearing following these injections has been more pronounced than that obtained by the use of 10% solutions of soda, which, until now have been most frequently employed. On the whole, the cases in which the local injections of pilocarpine produce a notable result are but few; in most cases the faculty of hearing does not improve at all, or the improvement is only indifferent and of short duration. Here, too, the treatment must not be extended beyond two or three weeks. It is quite otherwise with the so-called cases of chronic catarrhs in the middle ear, where the adoption of this method must be deprecated. I have already shown that in the year 1885 (*Wiener Med. Zeit.*, 4, 5, 6), and again in my Text-book of Ear Diseases (1887), the treatment of dry catarrhs of the middle ear with pilocarpine is worthless. The position to-day has not changed. It must also be insisted upon that in every case of extreme deafness where the tuning-fork can be heard longer from the mastoid process than opposite the ear (air conduction, negative experiment of Rinne), and in addition, where low tones are not at all or only faintly perceived through the medium of air, while high ones are at the same time very distinctly heard, the subcutaneous treatment with pilocarpine is strongly contra-indicated.

The above remarks have been found necessary from the circumstance that for some time past I (I am not singular in this experience) have been consulted by many patients suffering from extreme deafness who had been previously treated by other aurists for several weeks, or even for several months, with subcutaneous injections of pilocarpine without the slightest benefit, in the cases of which an examination showed the presence of a marked sclerosis of the mucous membrane of the middle ear.

While it is true that the subcutaneous injections of pilocarpine usually can be tolerated by the patient for several weeks without any unpleasant consequences, still there are cases in which its protracted use has produced loss of appetite, faintness and considerable emaciation. When I consider the abundant salivation and diaphoresis, so disagreeable to the patient, which are associated with the daily use of this remedy, I feel it my duty to say that those practitioners who in all cases

of extreme deafness, indiscriminately—that is, without a previous careful examination by means of the tuning-fork, and consequently without any differential diagnosis between affections of the middle ear and those of the labyrinth—subject their patients to a long and wearisome course of treatment with pilocarpine, are not too conscientious in the discharge of their calling.

The following is a summary of the above:

1. The subcutaneous injections of pilocarpine are particularly indicated in recent affections of the labyrinth, be they of a syphilitic nature or not. In protracted diseases of the labyrinth these injections, if tried, must be abandoned if no improvement results after from ten to fifteen injections.

2. The subcutaneous injections of pilocarpine are but rarely employed in otitis media acuta, where the cavum tympani contains hardened exudative products, which resist reabsorption, nor, moreover, in panotitis gemina diphtheritica, or in other diseases produced by infection.

3. The subcutaneous injections of pilocarpine are decidedly contra-indicated in cases of dry sclerotic catarrhs of the middle ear.

4. Injections of several drops of a 2% solution of muriated pilocarpine through the catheter into the tympanic cavity are beneficial in some cases of catarrhs connected with swelling and a slight secretion of the mucous membrane of the middle ear, continued from one to three weeks alternately, with inflations of air by Politzer's procedure. The purpose of the present communication is to reduce to a just measure the therapeutic value of the subcutaneous injections of muriated pilocarpine in diseases of the ear, and to draw attention to the frequent abuse which has been made of this remedy for some time past.—Dr. Adam Politzer, *London Lancet*.

ON THE TREATMENT OF STRICTURE OF THE MALE URETHRA.

The amthor's conclusions as to the treatment of organic strictures of the urethra may be summed up as follows:

1. Strictures of large caliber, that is, of more than 15 French, situated at or behind the bulbo-membranous urethra, are to be treated, almost without exception, by gradual dilatation.

2. Strictures of large caliber occupying the pendulous urethra are to be treated by gradual dilatation when very recent and soft, and by internal urethrotomy when of longer standing, distinctly fibrous in character or non-dilatable. It is to be remembered that the great majority of so-called strictures of large caliber of the pendulous urethra are merely points of physiological narrowing.

3. Strictures of the meatus and of the neighborhood of the fossa navicularis should be divided upon the floor of the urethra whenever it is evident that they are real pathological conditions producing definite symptoms and not normal points of narrowing.

4. Strictures of small caliber (less than 15 French), situated in advance of the bulbo-membranous junction, unless seen very early and found to be unusually soft and dilatable, furnish the typical condition for internal urethrotomy, which should be done preferably with a dilating urethrotome and, invariably, with all possible antiseptic precautions.

5. Strictures of small caliber (less than 15 French), situated at, or deeper than, the bulbo membranous junction should be treated, whenever possible, by gradual dilatation. In a case of resilient, irritable, or traumutic stricture in this region, or of stricture which, for any reason (as the occurrence of rigors), is non dilatable, external perineal urethrotomy is the operation of choice.

6. Strictures of the deep urethra, permeable only to filiform bougies, should be treated by gradual dilatation, when possible, the filiform being left *in situ* for some time, and followed by the introduction of others, or used as a guide for a tunnelled catheter. If the sticture be not suitable for dilatation, external perineal urethrotomy should be performed.

7. Impossible strictures of the deep urethra always require the performance of perineal section.—J. W. White in *University Med. Mag.*

NUMERICAL RELATION OF SEXES.

The *Journal of Cutaneous and Venereal Diseases*, February, 1891, cites a paper by Dr. C. Dusing, as stating that the number of males to the number of females born is a constant one as regards man, animals and plants. In man the numerical relation of male to female is 106 to 100. In horses, male and female, it is 100 to 98.

This relationship in man is subject to variation to a certain extent. For example, during war male births predominate. The absence of a considerable number of men exerts this influence. In favorable times not alone are a greater number of children born, but girls predominate. In unfavorable times fewer female children are born and more boys.

Among the first births in the human species there are relatively many males. This excess is especially seen in the children of those mothers who are advanced in age when they become pregnant, and is attributable to the nutrition of the mother not being up to normal.

From the explanations, it is concluded that the sex is not inherited, but results from a combined action of causes. These factors act not only at the time of impregnation, but at various times after. From the beginning the ovule has a tendency to the development of a certain sex, and the semen possesses the same tendency; both combine at the time of impregnation to constitute one tendency, which determines the sex. Long after impregnation, when the embryo is already developed, the nutrition is still of influence, and can cause a

change of tendency even if the sexual organs have be gun to develop; as, for example, the occurrence in the mother of a poor state of nutrition may arrest the development of the female and bring about the development of male organs.

When this late reactionary influence remains absent or is not exerted strongly enough to cause a change in the development of the sexaal organs, then the sex is definitely decided.—*Med. and Surg. Reporter.*

TREATMENT OF ERYSIPELAS BY CORROSIVE SUBLIMATE.—Cayet, in a Paris thesis, gives a method of treatment which was employed by Talamen in the treatment of pustules of small-pox and which he has used for the relief of erysipelas. The following solution is applied to the affected parts by means of an atonizer.

℞ Corrosive sublimate,
Tartaric or citric acid, - aa grains, 15.
Alcohol, - - - - - - ʒjss.
Sulphuric-ether, enough to make, - ℥iij.

This solution should not be sprayed into the nostrils and the eyes must be protected. The atomizations are to be repeated two or three times a day, and Cayet asserts that the cutaneous inflammation passes away in four days under this treatment.—*Revue Internationale de Bibliographic Medicale.*

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B. & O. RAILWAY.—The Baltimore & Ohio Railway is by common consent the main line between St. Louis and Washington, D. C., and as many of the physicians who expect to attend the meeting of the American Medical Association on May 5, have signified their intention to make the trip over this route, we take it that the determination is the result of purely business calculations. The first week in May is too early in the season for any enjoyment in wayside stoppages. Furthermore it is clearly apparent that the delegates will want to reach Washington as quickly as possible, after leaving St. Louis and the West. Matters of more than usual interest will come up for consideratiou early in the meeting, and many of the members will prefer to be in Washington a day before the convention is called to order.

ANGIER'S PETROLEUM EMULSION.—This natural agent boasts an antiquity nearly co-equal with that of all history, used by the Indians and pioneer settlers of this country, its use revived by the laity in the oil regions of Pennsylvania. Confident of its efficient health giving qualities, science has seized, purified and compounded it so as to render it elegant, palatable, easily talerated by delicate stomachs; readily taken by many to whom Cod Liver Oil is repulsive. Its claims are great, but seem to be fully sustained by testimonials of undoubted authenticity. It is found highly useful in most chronic affections of the lungs, often tested and approved in Erance and Germany. Increases the appetite, removes the causes of chronic diarrhœa and other affections of the digestive apparatus; also of the urinary organs; is concentrated and is cheap, safe and effectual; commended by numerous physicians, members of boards of health. etc. Angier Chemical Co., Irvington Street, Boston, Mass.

ORIGINAL COMMUNICATIONS.

ADDRESS

OF PROF. SENN ON ACCEPTING THE CHAIR OF SURGERY IN THE RUSH MEDICAL COLLEGE, CHICAGO, DELIVERED BEFORE ITS FACULTY AND STUDENTS, APRIL 11, 1891.

Within the short space of four years, ruthless death has twice vacated the chair of surgery in this college. On both of these sad occasions the faculty, students and alumni felt that an irreparable loss had been sustained. To fill the chair of surgery made vacant by the death of men who have distinguished themselves in their profession by honest, scientific work, and have endeared themselves to their colleagues and students as exemplary and masterly teachers is by no means an easy task, hence the anxious inquiries from all sides and everywhere: Who shall be the successor? Who shall continue the work left unfinished? Rush Medical College has always been justly proud of its chair of surgery. Its founder was a surgeon of world-wide repute and there can be no doubt that from its very beginning, the men who have occupied this chair have been the great magnet which has attracted an increasing number of students from year to year. I am not saying too much if I make the claim that the chair of surgery in this school with the immense clinics attached to it stands today, in the estimation of the profession and the people, second to none in this country.

The faculty of this college have entrusted me with part of the work commenced by the immortal Brainard, the work so faithfully and ably conducted by the genial and scholarly Gunn, the work brought up to the present immense proportions and importance through the heroic labors of Parkes, whose untimely death is now the cause of universal sorrow. To be chosen as one of the successors of such men should satisfy the goal of ambition of any man. To be the fourth in the genealogy of a group of such surgeons in the oldest and most famous institution for medical education in the great Northwest is a mark of distinction which I fully appreciate and which I shall make a faithful endeavor to merit by earnest devotion to the duties imposed, and by contributing my humble share toward making this great city, what it surely will be in less than twenty-five years, the most important medical center in the United States.

Brainard, the founder of this institution and the first occupant of the chair of Surgery, was a great surgeon, a gifted teacher and an original investigator. His giant intellect was not content in acquiring, practicing and teaching what was known at his time, but sought new fields for exploration, and the knowledge thus gained was freely infused into his students. Brainard's work in the field of experimental surgery brought him an international fame and his name will be quoted as long as books on surgery will be printed. His work has not only left numerous permanent impressions in surgical literature, but it created a stimulus which took possession of his students and the progressive surgeons throughout the civilized world, leading them away from the old well-beaten paths into new, unexplored territories awaiting the advance column of original explorers. It is difficult to estimate the importance and magnitude of his work in this direction, but hundreds of his students scattered all over this country still remain living witnesses of his zeal, industry and ability as a surgeon, teacher and scientist. They are to be envied for having received their first surgical knowledge from one of the greatest, and certainly from the most original surgeon that America has yet produced.

Prof. Gunn assumed a responsible position when he succeeded Brainard. That the faculty acted wisely in securing his services has been abundantly shown by his marvelous success as a teacher, and the ever-increasing prosperity of the college under his watchful eye and judicious guidance. Gunn loved this institution, dearly and jealously watched its interests. He was more than a friend of every one of its graduates. He was not only familiar with the current surgical literature but also added his share of original scientific work. His love for original research seemed to increase as he grew older. His contributions to our knowledge of the mechanism of dislocations were the outcome of patient experimental work and philosophical reasoning, and mark a decided advance in this important department of surgery. His last paper on this subject is a masterly product and should be in the hands of every student, as it is a genuine multum in parvo, containing all essential facts pertaining to this difficult chapter in surgery in a nutshell. Although the faculty, the students and every graduate felt keenly the great loss sustained by the death of Prof. Gunn, the action of the faculty was plain in the selection of his successor. Prof. Gunn made ample provision to meet such an emergency during the whole time he was connected with the college. He selected and trained his own successor. The late Prof. Parkes was well aware of this fact and made the best of his excellent opportunities. For fifteen years he taught anatomy with an enthusiasm and ability unsurpassed in this or any other country. Under his tuition thousands of students learned to regard the study of anatomy as a pleasant and profitable pastime instead of an uninteresting drudgery, as is so often the case when taught by one less skilled and conversant with his subject, and left the college perfectly familiar with the essential basis of a thorough knowledge of surgery. During all this time Parkes was the right hand of his teacher in surgery, master and student assisting and stimulating each other in their respective work. How well he had prepared himself for his life-work is shown by his short, but brilliant career as professor of surgery. His accurate knowledge of anatomy combined with his

familiarity with modern surgery made him a brilliant and successful operator. His skill as a surgeon was soon recognized and was eagerly sought for far and near. His success as a surgeon has made this clinic what it is to-day, one of the largest and most profitable on the continent. As a teacher few equaled, none surpassed him. Like his predecessors, Parkes was not only a distinguished surgeon and a great teacher, but also an enthusiastic, faithful worker in the field of original research. His valuable experimental investigations on the surgical treatment of penetrating gunshot wounds of the abdomen have laid the foundation for the rational treatment of these injuries for all time to come. His experimental and clinical contributions in this department of surgery have erected a monument to his memory more enduring than marble and more precious than bronze.

His untimely death is surrounded by halos of peculiarly sad and distressing circumstances. The cold hand of death touched him in the prime of life. The final message reached him at a time when he was just beginning to reap a well-earned abundant harvest and when in full view of a professional career unparalleled in usefulness and prosperity. His pen dropped from his busy hand after he had nearly completed what promised to be a most interesting and valuable work on Abdominal Surgery. His work as a teacher came to a sudden end near the close of the session and just before the commencement exercises at which one of the largest and best classes left the portals of Rush Medical College in deep mourning over the loss of their favorite and most esteemed teacher. His restless soul departed from this world in the absence of his family, and the last moments of his life were not cheered by words of love and parting kisses from those nearest and dearest to him. The life of Prof. Parkes furnished a striking illustration of what can be accomplished in a little more than half a life-time by well-directed, hard study; close application to professional duties and unremitting work in search of new facts. In appearing before you as one of his successors, I am free to confess that it is with a keen appreciation of my many short-comings. In resuming the work as a teacher of surgery, I am encouraged by the prospects that I shall in the near future be joined in my work by Prof. Roswell Park, of Buffalo, a surgeon of more than national reputation. If the combined work of both of us shall accomplish for the college and students what was done by Brainard, Gunn and Parkes, my ambition and expectation will have been realized. I have left a lucrative practice, a pleasant home, a large circle of professional and social relations, a prospering, wide-awake state, and a beautiful city, and have come here to devote the balance of my life to the interests and welfare of this college and its students. I am fully conscious of the fact that I am coming at a time when the methods of teaching are undergoing a radical change. In the future, recitations will largely take the place of didactic lectures. Text-books will be written with this special end in view. This comparatively new method of teaching surgery will be made a prominent feature during the next and all subsequent sessions. This new departure will necessarily change somewhat the plan and scope of clinical teaching. It is my intention to carefully arrange and classify the available clinical material in my department which will enable me to combine didactic with clinical instruction. This change will result in a reduction of the number of cases brought before the class, but will prevent unnecessary repitition, and thus save more time for the study and examination of pathological lesions, which will be a sufficient inducement for the students to attend every clinic, take full notes of what they see and hear and to remain from beginning to end. May God grant that the work entrusted to me and my absent colleague may be worthy of our predecessors, and equally efficient in relieving suffering humanity, in advancing the interests and in increasing the sphere of usefulness of this college, and finally, in giving to its students a thorough knowledge of the science and art of surgery.

ABSTRACT.

PROGRESS OF SURGERY.

APPENDICITIS.

BY GEORGE WILEY BROOME, M.D.

I believe it was Musser, in the year 1888, who first published a studied attempt to give definiteness to the names in general use by using typhlitis for inflammation of the cæcum, peri-typhlitis for inflammation of the peritoneum covering the cæcum; and paratyphlitis for inflammation of the connective tissue behind the cæcum.

Early in 1890, Gerster published his "Essay upon the Classification of the Various Forms of Appendicitis and Perityphlitic Abscess, With Practical Conclusions," in which he took occasion to elaborate at some considerable length under the following sub-heads:

1. Acute Appendicitis (without tumor).
2. Acute Appendicitis, with Tumor; Perityphlitic Abscess, Including Types of Acute Perityphlitic Abscess, viz., Anterior Parietal Type, Posterior Parietal Type, Rectal Type, Meoceliæ Type.
3. Chronic or Relapsing Appendicitis and Perityphlitic Abscess.

Though an essay written in classical taste and calculated to carry the impress of rationality because of its distinguished source, yet viewed from the standpoint of plain, useful, practical instruction, to the average mind, there could only result confusion worse confounded. Many recent writers treat the subject in much the same way. But little effort has been made to simplify the methods of treatment and render the pathology better understood.

I am in a position to declare that nearly, if not quite,

the full hundred per cent of the cases heretofore designated by the terms enumerated by Gerster, are only, or should only present the formidable aspect of a simple abscess to the mind of the physcian, instead of the *noli me tangere*, with which the refined theorist continues to frighten him into fatal conservatism.

I have seen five cases within the last two months, in each of which the treatment consisted wholly in simply incising the abdomen over the cæcum, irrigation and drainage—the same procedure which is followed in opening an ordinary abscess. Three of these were at the Protestant Hospital, two of them are there at this moment; one at Pius Hospital, and the other was the late deputy-coroner Praedicow. The above are the only cases I have seen in the time specified. Four are practically well, but in all of them the simple treatment above indicated embraced all that was done after the diagnosis was determined. The symptoms which, in each case, enabled us to reach the diagnosis, were, pain at McBurney's point, and increased temperature, both conditions having followed a chill, together with a sudden severe pain in the appendicular region. In all of the above cases the pus was confined between the kidney and bottom of the iliac fossa, *outside of the peritoneum.* In two cases about five weeks had elapsed after the appendix had ruptured and before the pus was evacuated, and in each there was at least a gallon and a half of pus, and I wish to emphasize the fact that there was no tumor present in any of these five cases before the operation and when the diagnosis was being made.

Hence the folly of waiting for the appearance of a tumor before attempting to relieve the patient. Besides, in the light of these cases, it can only be considered exceedingly erroneous teaching that the peritoneal cavity is necessarily invaded by the pathological process and exposed by the operation. The last case of those above-mentioned in which the pus was evacuated through the lateral incision, the entire appendix, measuring three inches in length, was found at the bottom of the abscess cavity, and which was lifted from the floor of the iliac fossa, and by handling, although very gently, it came away entire, soft, rotten, and emitting an exceedingly strong stinking odor of fæcal matter. So, that after all, the extremely fine points which have been so elaborately written about, relating to the nature of this disease, and the many hard rules laid down for the guidance of the physician who could muster courage enough to follow them, belongs to theory more than practice.

Recently, however, the subject has undergone a very careful and systematic overhauling at the hands of Mynter, McBurney, Keen, Stimson and Fowler.

The discussions are published in full in the columns of the *Annals of Surgery*, April number, 1891, and will abundantly repay the time spent in a careful study of the respective contributions upon the subject.

Mynter discusses the pathology of appendicitis, and among other instructive points, makes the following:

"The question whether a perityphlitic abscess is intra- or extra-peritoneal, has been debated again and again. I see no reason for any disagreement on this point. Both cæcum and the appendix are, according to Bull and others, always completely invested with peritoneum. An abscess starting in the appendix must necessarily in the start be intra-peritoneal limited by adhesions. If the adhesions are strong and exudations continue to be deposited, so that perforation into the abdominal cavity is prevented, the parietal peritoneum may become perforated and the pus is then in the extra-peritoneal tissue in the iliac fossa, *i. e.*, an extra-peritoneal abscess, and may be opened by an extra-peritoneal incision above Poupart's ligament, or perforate somewhere else, as into the rectum, the ischio-rectal fossa or backward.

"McBurney thinks they are always intra-peritoneal and that it is always necessary to cut the peritoneum in order to open such an abscess. I think he stretches that point, and I disagree with him.

"In one case I discovered a distinct hour-glass abscess, consisting of a larger extra-peritoneal abscess, which I opened, and which with a round opening was connected with a deeper lying abscess, in which I could distinctly feel the appendix and a concrement, which I removed. In another much neglected case to which I was called four weeks after the patient was taken sick, because the physician could find no abscess, although looking for it, I discovered an enormous abscess ready to break through Pettit's triangle between the latissimus dorsi and external oblique muscles. Both were extra-peritoneal abscesses, although starting as intra-peritoneal abscesses, and in neither was the peritoneum cut.

"Kraft mentions flexion of the hip-joint as characteristic of appendicitis, but I must disagree with him on that point. I never saw flexion, *i. e.*, contraction of the ilio-psoas muscle, in appendicitis, and I see no reason why it should occur. The strong fascia iliaca is between the abscess and the muscles; otherwise the point of perforation of the abscess, if left to itself, would be down on the femur below Poupart's ligament. Contraction of the ilio-psoas muscle, in short, occurs only when the muscle either is acutely inflamed (acute psoitis), or perforated and infiltrated with pus from a cold abscess depending upon caries of the spine, necrosis of the pelvis, etc. A few words may be said about the statistics of relapses, perforations and fæcal concretions. A person who has recovered from appendicitis without operation is ever after in danger of a relapse, which may be either mild or the most severe form of perforative peritonitis. Kraft mentions a statistic of 106 cases, of which 24, *i.e.*, 23%, had had previous attacks, generally one to three years previously, in one case twenty years previously. Treves mentions one case who had 14 attacks, McBurney another, with 12 attacks inside one year. In regard to perforations, Matterstock found perforations in 132 out of 146 cases, attacks inside one year.

Fenwick in 113 out of 129 cases, *i.e.*, 90 and 86%. The perforation is usually at the free end, but may be circular, and as Krafft says, so to speak, amputates the appendix.

"In Matterstock's 146 cases fæcal concretions were found 63 times, a foreign body 9 times. In Krafft's 106 cases 36 fæcal concretions and 4 foreign bodies were found. Only small bodies can enter on account of Gerlach's valve. A cherry-pit may enter with difficulty, a plum-stone not at all.

"In regard to age, Matterstock found in 72 cases, 2 under 2 years of age; 10 between 2d and 5th year; 25 between 5th and 10th year; 35 between 10th and 15th year, which seems to show that childhood is most predisposed. This does not agree with other authors. Of 14 cases I have seen myself, only 1 was a child, a boy, 12 years of age; all the rest occurred in adults, and quite a number in people over 40 years of age. One only was a female, the rest males."

McBurney's part in this symposium relates to the "Indications for Early Laparotomy in Appendicitis," but as the diagnosis is an essential prelude to this, and as the credit is due to McBurney for having first suggested the value of the pain under the finger-tip pressure over the appendix, as a means of diagnosis, we shall quote the explanation of the method from his own language:

"I must, therefore, dwell on the diagnosis of the disease and endeavor to weigh the value of each symptom. Abdominal pain of greater or less severity is usually the first sign of appendicitis, but valuable time is often lost by reason of the misleading character and position of the pain. It is, at first, often referred by the patient to the whole abdomen, frequently to the epigastrium alone, sometimes to the umbilical region, and only in about half the cases does it begin at once in the right iliac fossa. But after a few hours or a day, it becomes more and more evident that the chief seat of pain is in the iliac fossa, and then the diagnosis is generally made. The slight character of the pain is sometimes seriously misleading, so that a diagnosis of mild enteritis, constipation or colic is sufficient to satisfy both physician and patient. In some cases a prodromal stage of abdominal discomfort lasting a week, or even longer, precedes real pain. I have found the exact location where the greatest sensitiveness to pressure exists to be a valuable means of diagnosis, so that in every case of abdominal pain, not otherwise satisfactorily explained, I make a careful search for it. In the first hours of an attack of appendicitis it is not enough to compress with the whole hand the region of the iliac fossa. Such pressure will often elicit no more complaint from the patient than pressure of a similar kind made at other parts of the abdomen. But if firm pressure is made with the finger-tip, and especially if the patient be made to cough while such pressure is being exerted, it is invariably easy to determine that the most sensitive point is a definite one in most cases. This point is very accurately in the adult from 1½ to 2 inches inside of the right anterior superior spinous process of the ilium on a line drawn to the umbilicus. In children it is, in proportion to their size, so much less distant from the spinous process. Occasionally this most sensitive spot will be found a half inch or so nearer the pubes, and sometimes this sensitive area will be larger than usual, but from the first hours of the disease even up to the end of several days, this sign may be clearly made out in every case. No other acute disease presents this feature. The accuracy of this sign I have demonstrated in every case operated upon by me since I first made the observation. The poimt described corresponds very accurately in the living subject to the base of the appendix, and for this reason the sign is clearly defined whether the appendix is long or short, or points up or down. Of course, in late stages of the disease this sign does not usually exist.

"Tumor may or may not be appreciable during the first two days. Sometimes the enlarged inflamed appendix itself can be distinctly felt at a very early period. As a rule, with few exceptions, tumor can be detected by the end of the second or third day. In very mild cases it is absent. The tumor consists of the appendix alone, or of the appendix surrounded by thickened omentum or inflamed œdematous intestine. Within the tumor pus is frequently found, but it is often absent. The percussion note is not necessarily dull. Tympanitic percussion may be noted, due to the fact that a portion of intestine full of gas lies over the tumor. Generally the patient complains if the right thigh is over extended, and he will object if he is asked to cough. Rectal examination at the onset is of no value. The pulse deserves careful examination. By its variation from the normal condition it often indicates the severity and the increase of the disease, as it always expresses the amount of constitutional disturbance.

"But few signs, then, are constantly present within the first 24 hours. The history of sudden onset, the point of greatest sensitiveness to pressure exactly localized over the situation of the base of the appendix, fever as shown by the thermometer and the pulse, and rigidity of the right abdominal muscles, are the most constant and valuable signs in making an early diagnosis. In very mild cases no sign may be present excepting that of sensitiveness at the point described.

"The making of an early diagnosis is of the greatest importance in reference to treatment. When no diagnosis is made opiates are usually freely given to subdue pain, more or less intestinal paresis and distension result, and pain being obliterated the arrival at a correct diagnosis is postponed from day to day. I have been asked to see a number of cases treated in this manner, and in most of them the diagnosis has been made with difficulty. Of the use of the hypodermic needle as an aid to diagnosis, I can only say that I think it should never be used. If it discovers pus it may still have done harm in finding its way to or from the pus, and if it does not discover pus, the negative evidence thus procured is of no value. What is the value of pain as a measure of the gravity of an individual case? If

great intensity of pain always existed in grave cases, or if great intensity of pain always marked a serious and advanced stage in the pathological process, we should have no difficulty in separating our cases into two classes, one consisting of the mild ones and another of the severe ones.

"In illustration let me quote briefly two cases: One, a healthy young man, had been attended for two days by two extremely competent physicians. His pain had been so slight, his fever only 100°, and his other symptoms so mild that no diagnosis had been reached. On the third day, without special aggravation of any symptom, he looked more ill and felt so. Nevertheless, when I visited him with the late Dr. Sands he had become already septic. Laparotomy was almost immediately done. The appendix was found much inflamed and partly gangrenous. It was perforated by a large concretion. No adhesions of the slightest kind existed, and the whole pelvis was full of foul pus. Another, also a healthy young man, had such severe pain that during the first twenty-four hours that his physicians gave him one and one-half grains of morphine, without securing complete relief. When I did a laparotomy on this patient I found an appendix with only moderate signs of inflammation on its interior, and absolutely no peritonitis. This appendix contained six fæcal concretions."

Prof. Keen also discussed the subject of "The Indications for Early Laparotomy in Appendicitis," and among other practical things, said:

"I am glad that the Committee have selected the name "Appendicitis" rather than the formerly more common "perityphlitis," for there is no doubt that Fitz is quite right in claiming that every case of so-called perityphlitic abscess must be regarded as primarily one of perforative appendicitis, unless proved to the contrary," and McBurney is right in estimating that perityphlitis as compared to appendicitis exists in not more than the proportion of one to one hundred. Not that cases of properly so-called perityphlitis do not exist, but that the form which we are to discuss at the present time, namely, an abscess in the right iliac fossa, as well as many other cases without abscess, almost always arise from appendicitis, and most frequently perforative appendicitis.

"Some, if not many, of these cases must go on, unrecognized even by the most careful observers, but I earnestly believe that operation is rightly undertaken when there is persistent pain and tenderness, especially at McBurney's point, with even slightly increased resistance without any tumor, with possibly a slight œdema and a moderate fever. An exploratory operation in careful hands, with modern antiseptic methods, has comparatively little risk, and I believe this risk will result in fewer deaths by far than will the expectant delay which has been generally heretofore the rule. Show me a case operated on in which the operation was a mistake and for every one, ten can be shown in which the Fabian policy of waiting for the signs of tumor or of peritonitis was fatal. Even if the operation was unnecessary, and, therefore, a mistake, it will rarely cost a life, but the opposite mistake is nearly always fatal.

"Most commonly, however, I believe these cases belong at first to the next class, in which an abscess, not perhaps of large size, has really formed, and, not having been recognized and operated upon, it has suddenly burst into the peritoneal cavity. In many instances again it is impossible to distinguish between those cases which will run a continuously mild course and terminate in resolution and the apparently mild cases which run a nearly parallel course, but which are accompanied by abscess, and finally burst into such fatal fierceness.

"But I believe it is not impossible, by minute and careful observation of the points to which attention is called in the next class, to be able, in general, to determine whether an abscess has formed, especially by the most minute and delicate palpation, sometimes by rectal and vaginal examination; often by the possibly overlying œdema; and generally by the tenderness at McBurney's point, in addition to the general constitutional symptoms. The general constitutional symptoms, it can scarcely be too strongly insisted on, are far inferior to the local signs in forming an accurate diagnosis. Even the temperature, so commonly a reliable guide, may be most deceptive, for the lesion is distinctly local in its chief activity, and the body heat is usually only moderately elevated, and may subside, while the local process is absolutely progressing toward a most dangerous or a fatal issue. (Since this paper was read I have operated in the Jefferson College clinic on a young man, 92 hours after the beginning of the attack, with moving temperature of only 99°, and yet an inch of the appendix was falling into gangrene around a large fæcal concretion, and a half pint of fœtid serum and flakes of fibrinous exudate were discharged from the right iliac fossa. He is recovering without a bad symptom.) The only general symptom of especial value is severe pain arising, as has been pointed out by Stimson, not as an initial symptom, when it is often severe, even in otherwise mild cases, but arising more or less suddenly in the course of an attack. This very pain itself may be more justly called a local than a general symptom.

"I would lay it down as a rule, therefore, that even in mild cases, and in cases that are apparently convalescing, if the indications point even slightly toward pus, an early operation should be done. If pus is present, the propriety of an operation, I am sure, will be denied by no one, and if it is absent a simple exploratory operation with the precautions of modern antiseptic surgery is so far from being dangerous that no patient should be allowed to run the risk of a probable or possible rupture and general peritonitis. An exploratory operation 'carries with it less danger than the disease.' The same challenge just made above may be confidently repeated.

"The third class of cases, however, is that which most frequently comes under the eye of the surgeon. They

occupy a middle place between the mild form, so often overlooked, and the acute form of general peritonitis. Even in this class the symptoms are not seldom latent, and may escape notice unless the physician is on the alert and has been forewarned of the possibility of appendicitis, either by such a discussion as the present one, or by his reading, or it may be, by sad experience.

"Usually, there will be more or less pain, commonly quite severe. This pain is often not at first located in the right iliac fossa, but may be over the whole abdomen, in the epigastrium, the hypogastrium or even the left iliac fossa. In time, however, though it may persist elsewhere, it generally becomes most severe in the right iliac fossa. Dr. McBurney has done a good service in pointing out that tenderness to pressure is especially marked at a point 'an inch and a half to two inches from the anterior superior spine on a straight line toward the umbilicus,' and it is best determined by pressure with the tip of one finger. Sometimes the tender point is a little lower than the line. It is often best indicated by the patient himself. With this pain will usually go nausea, vomiting (not stercoraceous) and constipation. The fever will be marked but rather moderate, rarely over 103°, and more commonly in the neighborhood of 101° or 102°. Dulness on superficial percussion not seldom may be absent by reason of interposing coils of intestine. Deep percussion may, however, show diminished resonance and even dulness; and a delicate touch may discover increased resistance, and this physical sign, as well as the dulness, may be marked Both of these signs are generally best marked under ether. Even when a large abscess is present I have never been able distinctly to discover fluctuation and I place no reliance whatever on the absence of this sign. A sign which has been too much neglected, I think, is the œdema, which is so commonly seen over lying a deep abscess. If the right iliac fossa be doughy with œdema I believe it is almost always a reliable sign of suppuration. Several times I have noticed this œdema in the layers of the connective tissue between the muscles, even if absent under the skin. Its existence is of great value as a positive indication of pus at a lower level."

"I should, therefore, formulate a general rule that by the second, certainly by the third day, and *a fortiori* later, the operation should be done if the following indications are present:

"First, if there is abdominal pain, most marked in the right iliac fossa, and especially with tenderness at McBurney's point, attended possibly with nausea and vomiting. Secondly, if there is rigidity of the right abdominal wall. Thirdly, if there is fever up to 100°, 101° or 102°, which does not yield to medical treatment. Fourthly, if by minute and careful palpation tumefaction and increased resistance can be discovered, with possible dulness and rarely fluctuation; and fifthly, if there is œdema of the abdominal wall.

"Pus will generally be found, but it is possible that there may be none. If pus is present the abscess cavity is to be evacuated and washed out with great care, lest its frail wall be broken down and general peritonitis ensue. If there be no pus the appendix should be sought, and if, as will almost uniformly be the case, it is swollen, thickened, distended, the seat of a concretion or otherwise abnormal, even without perforation, it should be tied and cut off, and the stump either be simply disinfected, or, as I prefer, inverted and covered by a few Lembert stitches through the outer layers of cæcum.

"The brilliant results which have been reported by Senn, Treves, McBurney, Stimson, Bernardy, Baldy and others, in cases in which no pus was present, but the appendix was perilously diseased, have abundantly shown that such an appendix is a menace to life, compared with which the dangers of an aseptic operation are nothing. Moreover, I should be decidedly in favor of an operation even if there were present only iliac pain, tenderness at McBurney's point, rigidity of the abdominal wall, moderate fever and increased resistance without tumefaction and dulness, nausea and vomiting. The unusually large personal experience of Fitz shows that five-eighths of all cases, and one-fourth of the cases which had been treated medically alone, should have been operated on. With so large an experience from so careful and accomplished an observer, it is a crime for us to go on allowing case after case to die that ought to have been relieved by surgical interference."

Space will not permit a more extended review of these exceedingly valuable and instructive discussions.

TRANSLATION.

OTOLOGY.

STATISTICS OF CEREBRAL ABSCESS CONSEQUENT UPON OTITIS.

Translated for the REVIEW.

The author has obtained the results derived from 100 examinations of cerebral abscess consequent upon otitis. The abscess was located in the cerebrum in 62 cases; in the cerebellum in 32, and in 6 cases both organs were involved. Rarely do we meet with cerebellar abscess in children of less than 10 years, probably on account of the distance of the membrana tympani from the labyrinth, and because the posterior cranial fossa is much larger in the child than in the adult. Men are affected more than twice as frequently as women. Out of 100 cases, abscess occurs 59 times on the right side, 38 on the left, and 3 times on both sides. A very considerable number of cerebral abscesses, consecutive to a suppuration of the ear, are developed in regions very near the site of the original lesion, and often are in evident continuity with it. The author establishes the fact, that, as a general rule, cerebral abscesses of temporal origin

are situated in parts near that bone, in the temporal lobe and in the corresponding part of the cerebellum. Most frequently they are isolated. Abscesses of the temporal lobe in 16 cases were encapsulated; 17 times not; those of the cerebellum were 12 times encapsulated, and 8 times not. The most frequent complication of cerebral abscesses, consecutive to otitis, is thrombosis of the transverse sinus, 26 cases; next, meningitis, 17 cases. Perforation into the lateral ventricles occasioned death in 10 cases; into the fourth ventricle and auditory meatus, once.

For the differential diagnosis between abscess of auricular origin, of the cerebral lobe and of the cerebellum, we must take into account the age of the patient. Cerebral abscesses are met with three times as often in children under 10 years as in adults. Experience shows, in addition, that osseous lesions of the median cranial fossa, especially of the theca of the tympanic cavity and of the mastoid process, produce abscesses of the temporal lobe; those of the posterior cranial fossa produce abscesses of the cerebellum; three cases only constitute the exception to this rule. Abscesses of the cerebellum follow more frequently lesions of the labyrinth than those of the organ itself. We frequently find a painful point on percussion at the level of the abscess.

Spontaneous pain, according to Koerner, has no insignificant value in the diagnosis of localization. Vertigo is observed in abscesses of the brain, as also in those of the cerebellum. Optic neuritis by central compression is far from being rare in the class of cases. Photophobia is rarely well marked; three times in abscess of the cerebellum and once in those of the brain. Affections of speech occurs only in abscesses of the brain situated on the left side. Hæmiplegia and hæmi paresis have occurred in 6 cases of abscess of the temporal lobe. In two of the cases observed, there was noted, besides, paralysis of the facial nerve. This same was distinctly marked in one case of cerebellar abscess. Paralysis of the facial of the same side seemed to have been produced, in an analogous case, by a lesion of the nerve in the interior of the cranial cavity.—Koerner, *Revue Internationale de Bibliographic Medicale.*

Bromoform in Whooping-Cough.—In Berlin bromoform has been administered with gratifying results. One hundred children, varying in age from 8 weeks to 7 years, have been treated with it. In London the doses given were two to five drops, three times a day, with a spoonful of water. This agent must be kept from the light to avoid rapid decomposition. As a rule, its beneficial effects were observed on the second or third day, the vomiting being arrested within a week. In a very few cases the drug has produced sleepiness and lassitude, and in one case (a very young child) a comatose condition was induced, though the dose was not large. It revived by a subcutaneous injection of ether.—*Am. Prac. and News.*

WEEKLY MEDICAL REVIEW.

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TO CONTRIBUTORS AND CORRESPONDENTS.

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When a manuscript is sent to this Review, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

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Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

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SATURDAY, APRIL 18, 1891.

Medical Lectures. Three Courses vs. Two Courses.

Shall three courses of medical lectures be required of medical students as an indispensable qualification to graduation? Some of the States, by their legislatures, have so determined. But Missouri refuses to wheel into line with her peers. This enactment is, however, perfectly consistent with her past history—fifty years or more behind the times! Such legislation is manifest in creating a State Board of Health, and after its existence for one term, and after giving it scanty nutrition during that period by its parsimonious appropriation, it has allowed it a nominal existence, having a name to live, but crippling the most earnest efforts of the Board, by refusing to grant funds to enable it to act efficiently. Still the Board has heroically determined to live; thus exhibiting a public spirit, worthy of all commendation, which, we trust, the next legislature

will duly appreciate, and by more intelligent consideration will make amends.

The act having passed the House, its friends deemed the concurrence of the Senate almost a foregone conclusion, but to their dismay and disappointment it failed to pass by three votes. Criticisms, numerous and keen, have been indulged in, in public and private; but censure, inuendo and sarcasm among equals can never avail in harmonizing differences. Harsh words between two men endeavoring to adjust business relations will always postpone the accomplishment of the desired end, and alienate those who should be friends. Verbal coruscations may dazzle by their brilliancy, but do not enlighten or convince. Better far to approach business on a business basis, without the occurrence of such violent preliminaries.

In the daily prints have recently appeared expressions of diverse views on the subject of requiring on the part of the medical student attendance upon three complete courses of lectures at medical colleges duly incorporated and equipped. In reference to this great question, we unhesitatingly profess our adhesion to the longer term. At the present stage of medical science this stage is full short enough for any, even the most highly endowed, to acquire a complete knowledge of all the branches embraced in the required curriculum; it is, then, not too long for him of mediocre talent, and surely not for him whose mental qualities, if duly exercised, might confer dignity and efficiency upon the plough or the hoe. It cannot be denied that by virtue of superior natural abilities, one man may easily accomplish in one year more than another in two years.

Gifts, diverse in degree, are in accordance with the natural law among intelligent beings; but medical schools cannot be organized and conducted after schemes adapted to individual cases, but for the *average* mind. This system is practically recognized in all educational institutions. In the latter it is true that one, possessed of a more powerful grasp and a wider comprehension, may be able to span the interval and vault to the grade higher; but the comparison is not germain nor legitimate. Mental culture and acquisition for self are the objects sought by this class of students; on the part of the *medical* student, the panoply of the physician is involved, invested with which he may most confidently enter the arena of conflict with disease and the accidents of human life. We think the legislation attempted if successful, would have resulted in no harm or hardship to any, but good to all. The warmest advocates of the short term will not insist that any man, however long the time he may devote to preparatory medical study, will, when complete, enter upon its practice as one who has transcended the limit of perfection, nor that he is *better* prepared than he *should* be. The requisite of the longer term will, therefore, operate to his advantage, and most certainly to the advantage of those whose interests and well being, in sickness or disability, are confided to his skill. The best prepared man, with the same environments, will the more readily win the prize. If the anticipated issue of the vote was negatived by untruthful representations, by refusal to accede to mercenary demands, or by any other improper agency, to their own consciences each senator and each lobbyist must stand or fall. It is a difficult and hazardous matter to impute motives for specific action, where their exhibition is not palpable and legible. It is not a novel thing for a legislature to exhibit anomalous conduct, but no State, with honor to herself, can long defy public sentiment, ignore the action of sister and contiguous States, and refuse to adopt measures, which for many years have been demonstrated to promote effectually the good of both people and the medical profession.

If one medical school of the fourteen in the State of Missouri persists in its attitude of opposition to the general sentiment, and will, notwithstanding, maintain its isolation, it can do so, nominally; but this is only the *first* in that long series of consequences that will inevitably ensue—affecting itself, at first, far less than those students which it may graduate. If they locate in the practice of medicine in this State, there is no hindrance; but should they seek location in Illinois or other three-term-requiring States, they, of course, will be debarred. Such medical school will boycott itself.

Some of the denunciations made during the banquet, recently held in this city, were, doubtless, inspired and inflated by the occasion, and will not bear the test of generous criticism, in more quiet or glacial moods, however great the disappointment and chagrin that prompted them.

The creation of a State Examining Board, independent of all medical colleges, and of political connections, seems to us to be the great desideratum of the time, as now obtains in New York, and perhaps in some other States. Such a measure would ensure impartiality and uniformity of examination, and the results could only redound to the good of the student and of society. But for reasons specified above, we would not abbreviate the period of study. If one, by any good fortune, has compassed, prematurely, the required course, there are collateral branches of science, ample in number, to which he can most profitably devote his surplus time. We have no disposition to enter the lists on either side in the discussion of the great question. But in our official capacity, we feel constrained to define our position in the premises, and express our view of the factors entering into them. Should any deem it necessary to further ventilate the exciting theme, we earnestly recommend that calmness and deliberation should characterize the effort, avoiding, by all means, personalities, for these are not arguments. Valid reasons, tersely stated, unencumbered by prolixity, are in order; but a diarrhœa of words, pungent and acidified, have the virtue only of affording a temporary relief of pent-up effervescent energies, but never can convince or persuade.

Causes of Prostitution.

(Boulengier, *Presse Med. Belge.*) The causes of prostitution are numerous, and the author enumerates only some of them:

1. Young girls, who under the promise of marriage, having become mothers, abandoned by their lover, disgraced, are often compelled to abandon themselves to prostitution. An inquiry into the parternity would diminish this cause of prostitution. They begin to understand this to day.

2. Maids, work women, receiving insufficient wages, resort to prostitution for the purpose of increasing their resources to satisfy their wants and sometimes their enjoyments. Doméstics out of a situation often have no other alternation for relieving their destitution.

3. Depravity, it may be evidently instinctive, it may be the natural result of a bad education (examples of dissolute parents, dense population of alleys, life in common, and in the same room as their parents and children, etc.), leads to prostitution.

4. Imperfect education, added to a nature, impressible and weak, advantage of which is easily taken, is also a cause of prostitution, which panderers, shameless procuresses in girls for debauchery, well know how to turn to their profit.

5. False pride, excessive wants, the taste for luxury, an effect equally of a pitiful education, idleness, also compels our girls to seek by prostitution that which an honest calling could not furnish them. "To be a domestic," these young girls will say to you, "to marry a mechanic or a servant; Mercy! they don't eat such bread in my family." To remedy the causes of prostitution, that is the logical remedy for attaining this effect, that is to say, to arrest the progress or to restrain the social consequences of prostitution also.

But in this as in alcoholism, the problem is complex and intimately connected with our social organization. It is a question of sociology and political economy on the subject of which it is the province of the physician to enlighten the public authorities.

MEDICAL ITEMS.

The Special attention of those interested in the correct method of conducting hospital cases is invited to the excellent contribution upon the subject by Prof. Morton, of Philadelphia, which appears it this issue of the Review.

Black Eye.—There is nothing to compare with a tincture or a strong infusion of capsicum annuum, mixed with an equal bulk of mucilage of gum arabic, and with the addition of a few drops of glycerine. This should be painted all over the bruised surface with a camel's hair pencil, and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, the treatment will invariably prevent the blackening of the bruised tissue. The same remedy has no equal in rheumatic, sore or stiff neck.—*Med. Times.*

The Longest Medical Courses are given at the Buddhist's Lamas' University in Thibet. The student has to study for ten years. According to *Nature*, a traveller named Ptitsyn has returned from that country with a collection of medical books and drugs illustrative of the knowledge and the methods of practice in Thibet. Mr. Ptitsyn remarks that he has found over one hundred diseases described in the Buddhist literature, and of these a mythical origin is ascribed to only two. Strictly medical subjects are not studied until the fifth year of the course, the first four years being devoted to the study of the languages and theology. The eighth year is devoted to astrology, and philosophy is studied in the last two years.—*Medical Record.*

The Mechanical Treatment of Gastric and Intestinal Diseases.—Dr. Josef Sumegi (*Oest-Ungar Centralbl. f. d. Medic Wissensch.*) states that in chronic constipation our main reliance in treatment should be massage of the relaxed portions of intestine. In addition to this he recommends gymnastic exercise, movements of flexion and extension at the knee, rotary movements of the trunk, and tapotement or light beating over the pelvic region. The treatment by this method is kept up for two or three menths, and if necessary is repeated. Attention should also be paid to the diet. Massage is best performed in the morning, half an hour to an hour after breakfast, or four or five hours after dinner.

The Effect of Mountain Climbing upon the Blood Pressure, Temperature, Pulse and Respiration.—In a preliminary contribution on this subject, Dr. Gorbatschew (*Wratsch*, No. 39, 1890) gives the results of five experiments on healthy young soldiers. He found that the blood pressure was always increased during the climbing, but during the following period of rest fell somewhat below the normal level. The temperature was increased, especially in the rectum. At the top of the mountain the pulse was more rapid by twenty-four to fifty beats than normal. The respiration was also increased in frequency. The quantity of urine secreted during the ascent was less than normal, but the specific gravity was higher.—*Centralbl. f. d. Medicin Wissensch.*, No. 1, 1891.

The Barring Out of Foreign Diplomas by the Illinois State Board of Health.—This action was taken because: 1. The diplomas of medical schools and universities do not entitle the holders to practice in those countries; 2. As may be seen from p. viii of the "Report on Medical Education" of the Illinois State Board of Health for 1891, the Prussian Staats Examer Commission rejected in 1890 more than 40% of the graduates of the University of Berlin, more than 47%

of the Breslau graduates, more than 31% of the Griefswald and Halle graduates—and in fact more than 29% of the university graduates that came before the commission; 3. Many of the rejected candidates come to this country; 4. Many such graduates, fearful of failing in the government examinations in their own countries, come to this country to enjoy a privilege denied them at home of practicing medicine simply on their diplomas. 5. The Illinois State Boad of Health feels that *it* should not place upon diplomas a higher valuation than is given to them in the countries in which they are granted.—*Jour. Am. Med. Ass.*

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, April 4, 1891, the President, L. Bremer, M.D., in the chair.

Circumscribed Foci of Softening in Pons—Etiology Obscure.

Dr. W. B. Dorsett presented specimen and said.—The post-mortem was made in this case to-day. The history is as follows: K. B., æt. 32, nativity Ireland, social condition, widow, resident of the city 15 years, occupation servant. Admitted to the Female Hospital, March 23, 1889. The history was commenced on April 23, and is as follows: No inherited predisposition to disease; patient has had typhoid and malarial fevers. Menses stopped two years ago. Since then has had constant headache and buzzing noise in ears. No history of rheumatism or venereal disease. Hygienic surroundings and habits good. Last July patient developed cramp in both legs, quite frequently, which came on at night when retiring, and at same time her knees began to be weak; obliged to quit work, as she was constantly falling against some object; has frequently fallen on the street on account of vertigo, and the weakness in knees referred to. Never loses consciousness; almost always falls backward, striking on her occiput; at same time developed pains in tibiæ (tender on pressure), also a burning sensation in the skin over both legs, back, side and arms, all more severe at night; strength considerably impaired in both legs, sensation not diminished. During the past three months has had frequent attacks of diplopia, especially when lying down—headache referred to vertex, occiput and temporal regions, occasionally very severe, causing her to vomit; rarely entirely absent; entire scalp is very sensitive; roots of hair feel sore and painful during the process of combing. Three months ago she could not retain her urine; afterward recovered this power. Three months ago had left facial paralysis; could not close the eye; later, improved; paralysis, however, still quite marked, can not entirely close the left eye; the mouth is drawn towards the right; right foot is greatly hyperæsthetic, the weight of bed clothes causing pain; left is not sensitive; power in left leg is greater than that of right. Vision progressively diminished during the previous five months; has also some difficulty in swallowing; sleeps poorly at night on account of noise in ears and headache; is fairly well nourished, though appetite is poor; has constant thirst; bowels constipated; urine passed in normal amount; pulse 108, respiration normal. Paralyzed muscles of face show reaction of degeneration.

April 26, 1890. Examination to-day shows patellar and tendon reflexes of arm much increased; pupils react normally; field of vision not diminished; hyperæsthesia of skin is quite general; more marked in the legs and scalp; paresis more evident on the right half of body; strength on left side below normal; muscular sense intact.

May 30. Ears examined recently by Dr. Shapleigh and a chronic catarrhal condition found to exist with slight depression of the membrane.

May 31. No improvement.

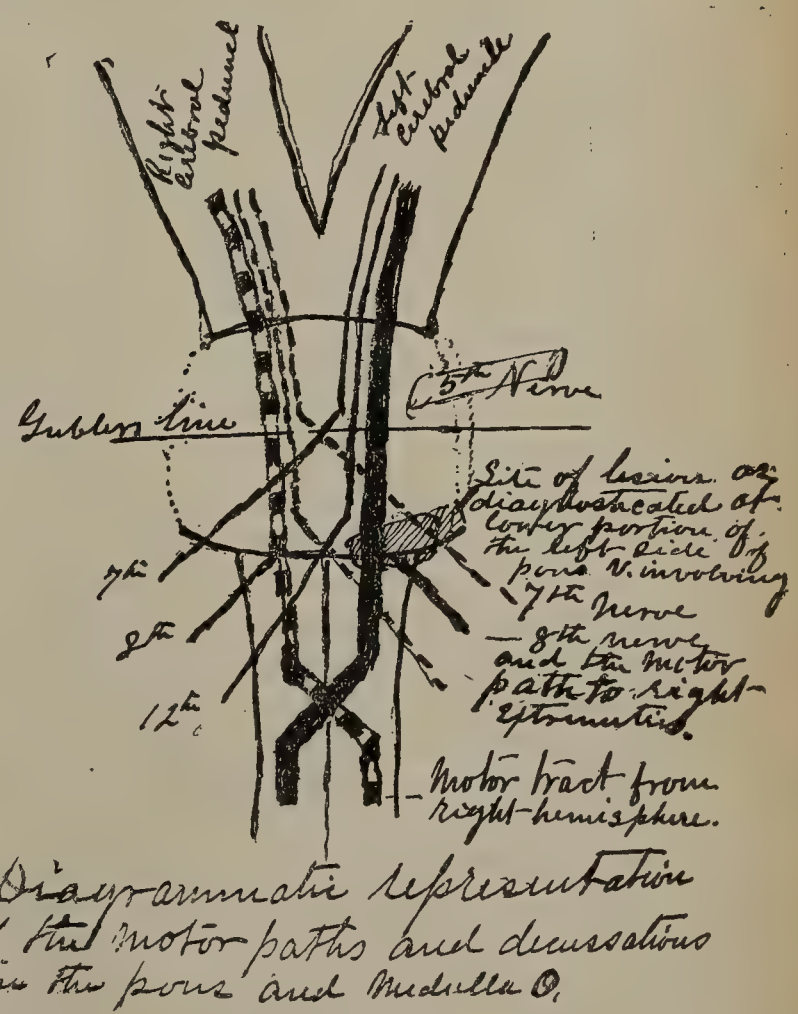
June 30. On examination of the patient to-day, Dr. Shaw made the following diagnosis: Probable site of lesion below Gubler's line; left half of pons, probably invading right side to some extent. Probable involvement of middle peduncle of cerebellum.

February 13, 1891. Spastic spinal paralysis; probable descending degeneration of the lateral columns of the cord.

April 2. The post-mortem was made to-day, the patient having died yesterday, the supposed tumor in the pons was not found, but several softened spots. Dr. Shaw being much interested in the case, was kind enough to assist me in the post-mortem.

Dr. A. B. Shaw said.—It may not at first be apparent why stress is laid upon the point of softening, that is found at the lower margin of the pons, when there are other points of softening throughout the brain; but it should be borne in mind that the specimen is presented largely because the diagnosis that was made a year ago last June of lesion at the site in which we now find the pons softened, has been verified. Probably since that time other foci of softening have occurred without developing any particular manifestations. Evidencing again a point I dwelt upon some weeks ago, viz., that profound organic brain lesion may exist without marked symptoms. No pronounced features have presented themselves during the past twenty months, except spastic paralysis of the lower extremities, especially marked from the knees down, doubtless the result of a descending degeneration in the lateral columns of the cord due to the lesion of the pons involving the motor tracts. The reasons for arriving at the diagnosis made are as follows: the patient first had cramps in the legs, particularly on going to bed; second, weakness of the lower extremities; third, a more marked degree of weakness of the right leg than of the left; fourth, a facial paralysis, which was a paralysis of both the upper and lower branches of the seventh nerve, not that variety of paralysis which would arise from cere-

bral trouble, but originating from interference with the seventh nerve after it has left the brain prior to entering the aqueduct of Fallopius, or in the pons itself, but the upper and lower filaments were involved, in other words the inability that was manifested to close the eye indicated a paralysis of the upper portion of the seventh nerve; fifth, the involvement of the nerve of hearing, the eighth nerve, coming out immediately below the lower margin of the pons, close to the seventh nerve. Now from these symptoms the diagnosis was made of a lesion of the pons. Mentality was intact. There never had been any affection that would indicate an involvement of the cerebrum, especially the cortical portion, but there was a paresis of both extremities. The trouble in the right leg almost amounted to a complete paralysis, and associated with this there was a facial paralysis upon the left side which as indicated was of that variety known as Bell's palsy. Hence it was argued that the paralysis was not of cerebral, nor properly speaking, of spinal origin; but due to lesion in the lower portion of the pons, where it would involve both the seventh and eighth nerves, and the motor tract on the side of the pons opposite to the side of the body paralyzed. The right side of the body being paralyzed, of course we shall find the lesion upon the left side of the pons because the motor tracts decussate in the anterior pyramids of the cord. There was no impairment of the (fifth) nerve. The lesion therefore was below Gubler's line in the lower portion of the pons, and probably at the lower margin of the pons, because there was not only this marked Bell's palsy, but in addition a phenomenon of hearing that could not be accounted for by anything that could be discovered by aural examination, viz., constant roaring and buzzing in the ear supposed to be due to the irritation of the eighth nerve at its point of apparent origin by reason of its contiguity. The diagnosis made on June 30, 1889, is to-day verified as to the location of the lesion, which evidently gave rise to the symptoms in the case, for there is not a symptom except the gradual impairment of sight, that can not be explained by the lesion found in the pons varolii. The parts at the lower margin of the pons, had undergone softening to such degree that even the most careful manipulation possible in removing the brain from the pons, although the parts are still connected by the basilar vessels. This case presents another illustration of the facility with which a correct diagnosis can be made usually by a careful survey of the symptomatology presented. A tumor, a blood clot or an abscess located at that point would have given rise to almost if not entirely identical symptoms. This diagram shows the course of the motor tracts through the crura and pons and indicates their decussation in the anterior pyramids as well as distribution to the opposite sides of the body; also the motor tracts of the twelfth nerve, decussation taking place just posteriorly to the inferior margin of the pons; also the motor tracts of the seventh nerves, decussation taking place a little below the middle of the pons varolii inferior to Gubler's line. Reference to it will readily demonstrate that a lesion situated at the lower left margin of the pons could involve the seventh nerve, producing left sided Bell's palsy, the eighth nerve causing the disturbance of hearing and vertigo. The motor path to the right lower extremities inducing first the cramps and weakness of the knees, and later on the marked paralysis of the right leg, the lesion extending across the median line would account for the cramps and paresis in the left leg; extension of the pathological condition upward and backward would soon involve the sensory tract in the body of the pons, and thus cause the hyperæsthesia and paræsthesia while the tactile sense was unimpaired. The gross injury to the motor tracts in the pons and medulla was the cause of the spastic paralysis during the last few months of life, the spastic condition being the result of a degeneration of the crossed pyramidal tracts secondary to the lesion in the pons. The diplopia was doubtless due to involvement of the sixth nerve at its origin in the pons.



Diagrammatic representation of the motor paths and decussations in the pons and Medulla O.

Dr. F. R. Fry said.—The factor which has enabled Dr. Shaw to locate at least one of the lesions in this brain, was this particular kind of paralysis of the seventh nerve—Bell's palsy—paralysis involving the upper and lower part of the face and showing the reaction of degeneration. The same condition would be presented if the nerve was affected after it had left the sterno-mastoid foramen. The brain presents evidences of lesion at other points than at the junction of the pons and medulla. The right crus cerebri is much affected, as also the middle peduncle of the cerebellum, and the cerebellum itself, indicating that there has been a gen-

eral condition of inflammation or encephalitis. This vertigo and tendency to suddenly fall backwards when she did fall, and without losing consciousness and the pain although that was not a prominent symptom, indicated the previous condition referred to. Diagnosis of a lesion at that portion of the brain could not have been made without the existence of paralysis of the seventh nerve.

Dr. William Johnson said.—One thing in this discussion has been overlooked: that is the cause of the trouble. This deserves the highest degree of consideration. What caused the softening of the brain?

Dr. Shaw added.—One symptom escaped comment, the disposition of this patient to fall backward; the lesion found on post-mortem would indicate the site of a softened neoplasm or possibly an inflammatory condition just in front of the middle lobe of the cerebellum. A destructive lesion of the middle lobe of the cerebellum produces a disposition to fall forward, while a simple irritation of the same lobe by contracting those muscles naturally brought into action to prevent such a catastrophe, very frequently causes the patient to fall backwards, and it is probable that the tendency of this patient to fall upon the occiput was due to an irritation of the middle lobe of the cerebellum.

Removal of Fragment of Steel From Vitreous by Electro Magnet.

Dr. Charles Barck stated.—The case he was about to report was one of successful extraction of a piece of steel from the vitreous humor by means of an electro magnet. Its interest resides chiefly in the unusually good vision that has been finally obtained. The patient is 40 years of age; his left eye received a severe injury about 15 years ago, in consequence of which his vision with it is very poor. On November 13 of last year, his right eye was pierced by a piece of steel. He was under the care of an oculist in this city for eight days; the speaker saw him first on November 21. There was then a small horizontal scar at the inner upper margin of the cornea about one line long; corresponding to this, there was a small perforation of the iris, and at the point of perforation adhesion to the lens capsule; the pupil was dilated in consequence of the instillation of atropine. Nearly the whole lens was opaque from traumatic cataract, a streak was visible extending from the anterior to the posterior lens capsule, from upward somewhat downward, clearly indicating the direction the foreign body had traveled, besides in the vitreous there was a small opacity with a somewhat metallic gray, yellowish reflex. The opacity and the reflex in the vitreous could not be seen very distinctly on account of the existing cataract, yet the conclusion was authorized that the foreign body had passed through the cornea, iris, and lens and was located in the vitreous. The same diagnosis was arrived at by Dr. Hunicke, of this city. We therefore concluded, if possible, to remove the foreign body from the vitreous. The operation was performed the next day, November 22. The corneal section was made downward, an iridectomy done, the debris of the lens opened, and the electro-magnet introduced. The foregn body was located deeper than we had at first supposed, and only after the introduction of the magnet several times was the foreign body secured and removed. It was about one line long and half a line wide. The healing process was regular and uninterrupted; the opaque masses of the lens which were left gradually underwent partial absorption, but much was still retained. On March 1 this was operated on by the needle operation and a tolerably round pupil was obtained. His vision is $^{20}/_{40}$ with convex glass or 12 dioptrics, and with a convex lens of 15 dioptrics he reads Snellen No. 5. The vitreous is completely clear and transparent and the fundus can be recognized distinctly.

The removal of pieces of iron and steel from the eye by means of the magnet is not as new as is generally believed. The first attempts were made fifty years ago. But the first person who removed such bodies through the wound made by the invading body, by means of a magnet, was Dr. Meyer, of Copenhagen, in 1842, and the first who made an artificial opening and removed such bodies was Dr. McKeen, of Belfast, in 1876; but the man who first used the electro-magnet was Dr. Hirschberg, of Berlin, in 1879, and we owe to him mainly this instrument which is now in the hands of every oculist. The number of cases in which such foreign bodies have been removed from the vitreous is now very large; the largest number of operations performed by any one man is Dr. Hirschberg, of Berlin. Shortly after the operation in this case, his account of his first 100 operations came to hand, contained in the last number of *Knapp's Archives of Ophthalmology*. Hirschberg divides the results into two classes, first, good; where vision between $^{20}/_{20}$ and $^{20}/_{40}$ is obtained; he secured good results in 4 cases out of 100. He calls the result medium in those cases in which some degree of vision is obtained; he reached this degree in 4 cases out of 100. In all other cases the result was negative, except the preservation of the eyeball. That is something to be accomplished, because a foreign body having penetrated one eye, is not only a constant source of danger to that eye, but also subsequently to the other, which is apt to be affected by sympathetic inflammation, and in many instances necessitating enucleation.

In using the electro-magnet no special battery is necessary, any common galvanic battery will do. This instrument (exhibited) was made by McIntosh, of Chicago, and is better finished than those which Dr. Hirschberg uses.

Glioma of Eye—Enucleation.

The speaker presented also a specimen of glioma of the retina, which was removed eight days ago from a child, 2 years of age. The parents noticed the disfiguration about four or five months ago. The appearance was the common one, the typical, white yellowish reflex of the fundus. The glioma fills nearly the whole vitreous, only a small portion of it being left.

Dr. William Dickinson said.—The report of a case of removal of the bit of steel from the eye, is a very interesting and successful one. One that rarely falls to the experience of the oculist. We have always just reason to apprehend that in course of time the foreign body would set up an irritation, which in all probability, would occasion destruction of the eye injured, and subsequently excite sympathetic ophthalmia in the other eye; consequently the attempt should be made to remove it under the circumstances related. The foreign body sometimes becomes encapsulated and then is quite inocuous. Operation for the cure of cataract, in olden times, by depression or reclination, as it was then often performed, rarely gave permanent success; though for the time being the success was very brilliant, and the vision acquired very good; but after the absorption of most of the lenticular matter, there still remained in the vitreous the debris of the capsule, which acting as a foreign body, generally produced an irritation and ultimately destruction of the eye. This method of operation has been abandoned.

In regard to the removal of the glioma, the speaker said he had removed those of a like character with the usual success, relief of suffering and extension of life. It is the only thing to be done—remove it as soon as it is diagnosed. In a case now in mind the patient lived fifteen months; in all probability life of the child was prolonged for a year or even longer; but these tumors almost always recur, sometimes they do not; this child ultimately died from its recurrence; it was not seen after the removal of the eye.

Dr. Williams said.—Some years ago he had a case in which a piece of steel or iron was projected into the vitreous chamber of a young man, but it was impossible to locate it. Dr. Barck assisted in an effort to remove it, but after repeated trials (eight, ten or twelve times), we failed to secure it. The patient afterward went to Chicago and there the eye was removed. A few days ago the speaker saw a middle aged man who had a piece of steel in the vitreous chamber. He presented himself a few minutes after the accident; a small cut was visible in the sclerotica on the inner side of the ball just over the insertion of the internal rectus muscle. The foreign substance had missed the lens entirely and entered the vitreous chamber, and had doubtless lodged in the upper and outer portion of the vitreous chamber. A line of blood could be traced through the vitreous humor from the point of its entrance to the point mentioned, but the body itself could not be seen. The advisability of trying to remove the body by the electro magnet was suggested, as this was the only thing to be done, the eye being probably hopelessly lost, and sooner or later its enucleation would be necessary, the foreign body was not removed. He said he would think about the matter and report the next day, which as usual, he did not do.

In regard to the glioma, this is an affection peculiar to young children, and malignant in the highest degree; removal of the affected globe is the only thing to be done. It will, however, return sooner or later without any question.

Dr. Dickinson.—Glioma will usually return, but not always. We have authentic histories of cases which after operation have not returned; one occurring in this city had not returned after thirteen years, though they usually return after a few months.

Dr. Williams said.—In that case he would call in question the diagnosis; it may have been something else, which was mistaken for glioma. He had seen a lady in this city, a grown person, 27 or 28 years of age, who was blind in one eye, and the fundus was filled with a substance exactly like glioma in a child; and he came to the conclusion that it was a glioma in a grown person, which is a very rare occurrence. The nature of the trouble was explained, and she was told that in all probability it would be necessary to have the eye removed, yet advised postponement for the present and meanwhile keep watch of the consequences. He saw the case repeatedly afterward for some years; the tumor did not increase in size, nor was she operated on. The diagnosis was later made of tuberculosis of the choroid, and not malignant, but its appearance was exactly that of glioma of the retina in a child. That lady is still living, and is well and stout, but she is blind in that eye, which presents a peculiar yellowish mass at the bottom of the eye, which doubtless is tubercular.

Dr. Pollak stated.—In 1875 he removed the eye of a nun, 18 years old, which evidently was affected with a glioma at least it certainly had that appearance. The eye was removed and seen by Dr. Bull, now of New York, but then living here. Half of the specimen was sent to Dr. Knapp, of New York, who, after making a microscopical examination, unhesitatingly pronounced it a glioma. It never returned, the nun is still living, being now 34 years of age.

Dr. Charles Barck.—My experience in removal of foreign bodies by the electro magnet is limited to six cases. In three of these the patient was seen immediately after the injury, and the foreign body could be seen with the ophthalmoscope. In two, vision was lost in consequence of the loss of the vitreous from the severity of the injury and consequent shrinking of the eyeball; in one there was a small amount of vision. The speaker had seen two cases in which it was impossible to locate the foreign body in consequence of the complete cataractous condition of the lens. One is the case mentioned by Dr. Williams, the other was seen in consultation with Dr. Michel, in which we tried in vain to find the foreign body with the electro magnet immediately after the occurrence of the injury. The eyeball was removed and the piece of steel was found sticking firmly in the retina at the edge of the optic nerve.

In cases of glioma our prognosis must always be given with great caution. These tumors are very malignant, and metastases or extensions to the other eye and in the brain are very frequent and very dangerous. Forty or fifty years ago the advice of the most famous oculists

was not to enucleate, or do anything in such cases, as they would recur. Opinion has since changed, and there are relatively a large number of cases on record where no metastases have followed.

SOCIETY NEWS.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

National Associations.

American Academy of Medicine, Washington, May 2 and 4.

American Medical Association, Washington, May 5, 6, 7 and 8.

National Association of Railway Surgeons, Buffalo, N. Y., April 30 and May 3.

Medical Society of the State of California, Sacramento, April 21, 22 and 23.

Medical Association of Montana, Helena, April 24 and 25.

Medical and Chirurgical Faculty of Maryland, Baltimore, April 28, 29 and 30.

Texas State Medical Association, Waco, April 28, 29 and 30, and May 1.

State Medical Society of Arkansas, Hot Springs, April 29 and 30, and May 1.

Medical Society of the State of Washington, Seattle, May 6, 7 and 8.

Missouri State Medical Association, Excelsior Springs, May 12, 13 and 14.

Indiana State Medical Society, Indianapolis, May 13, 14 and 15.

Kansas Medical Society, Wichita, May 13, 14, 15 and 16.

Illinois State Medical Society, Springfield, May 19, 20 and 21.

West Virginia State Medical Society, Fairmount, May 20, 21 and 22.

North Carolina State Medical Society, Asheville, May 26, 27 and 28.

Connecticut Medical Society, Hartford, May 27, 28 and 29.

AMERICAN MEDICAL ASSOCIATION.

The forty-second annual session will be held in Washington, D. C., on Tuesday, Wednesday, Thursday and Friday, May 5, 6, 7 and 8, commencing on Tuesday at 11 A.M.

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by representation in their respective State Societies, and from the Medical Department of the Army and Navy, and the Marine-Hospital Service of the United States.

"Each State, County and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, Territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association.

Members by Application.—Members by Application shall consist of such Members of the State, County, and District Medical Societies entitled to representation in this Association as shall make application in writing to the Treasurer, and accompany said application with a certificate of good standing, signed by the President and Secretary of the Society of which they are members, and the amount of the annual membership fee, five dollars. They shall have their names upon the roll, and have all the rights and privileges accorded to permanent members, and shall retain their membership upon the same terms.

The following resolution was adopted at the session of 1888:

That in future each delegate or permanent member shall, when he registers, also record the name of the Section, if any, that he will attend, and in which he will cast his vote for Section officers.

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, at once, lists of their delegates.

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries are, by special resolution, requested to send him, annually, a corrected list of the membership of their respective societies.

Amendments to the By-Laws.

Offered by Dr. A. L. Gihon, United States Navy:

"That the first day of the meeting of this Association shall be the first Wednesday of May or June respectively, instead of Tuesday.

By Dr. X. C. Scott, Ohio:

"That the Committee on State Medicine be abolished, inasmuch as the Section on State Medicine occupies the entire ground."

By Dr. E. A. Wood, Pensylvania:

"That the word Physiology be stricken from Section 1, and a new Section entitled the Section on Dietetics and Physiology be formed."

By Dr. J. C. Culbertson, Ohio:

"That the State and Geographical District Societies in affiliation at this time with this Association, having a membership of 100 or more, shall be recognized as branches of the American Medical Association.

That all members of said Societies enjoy all the rights and privileges now accorded to the delegates."

By Wm. H. Daly, Pensylvania:

"That in future the permanent members have all the rights of delegates."

ADDRESSES.

On General Medicine, by Dr. E. L. Shurly, Detroit.

On General Surgery, by Dr. Jos. M. Mathews, Louisville, Ky.

On State Medicine, by Dr. W. L Schenck, Topeka, Kan.

SECTIONS.

"The Chairman of each Section shall prepare an address on the recent advancements in the branches belonging to his Section, including suggestions in regard to improvements in methods of work, and present the same to the Section over which he presides on the first day of its annual meeting. The reading of such an address not to occupy more than forty minutes. * *" —*By-Laws.*

Practice of Medicine and Physiology.—Dr. Victor C. Vaughan, Chairman, 15 South State St., Ann Arbor, Mich.; Dr. George Dock, Secretary, Galveston, Texas.

Obstetrics and Diseases of Women.—Dr. Charles A. L. Reed, Chairman, 311 Elm St., Cincinnatti, O.; Dr. Howard A. Kelly, Secretary, 905 N. Charles St., Baltimore, Md.

Surgery and Anatomy.—Dr. Theo. A. McGraw, Chairman,75 Cass St., Detroit, Mich.;Dr.W.E. B. Davis Secretary, Birmingham, Ala.

State Medicine.—Dr. J. D. Plunket, Chairman, 145 N. Spruce St., Nashville, Tenn.; Dr. Benjamin Lee, Secretary, 1532 Pine St., Philadelphia, Pa.

Ophthalmology.—Dr. Leartus Connor, Chairman, 103 Cass St., Detroit, Mich.; Dr. T. E. Murrell, Secretary, 111 E. Fifth St., Little Rock, Ark.

Laryngology and Otology.—Dr. Carl Seiler, Chairman, 1204 Walnut St., Philadelphia, Pa.; Dr. A. B. Thrasher, Secretary, 157 W. Ninth St., Cincinnati, O.

Diseases of Children.—Dr. William Perry Watson, Chairman, 319 York St., Jersey City, N. J.; Dr. Hobart A. Hare, Secretary, 222 S. 15th St., Philadelphia, Pa.

Oral and Dental Surgery.—Dr. E. S. Talbot, Chairman, 125 State St., Chicago, Ill.; Dr. Henry W. Morgan, Secretary, 211 North High St., Nashville Tenn.

Neurology and Medical Jurisprudence.—Dr. T. D. Crothers, Chairman, Hartford, Conn.; Dr. Harold N. Moyer, Secretary, 434 West Adams St., Chicago, Ill.

Dermatology and Syphilography.—Dr. L. Duncan Bulkley, Chairman, 4 East 37th St., New York, N. Y.; Dr. W. T. Corlett, Secretary, Cleveland, O.

Meteria Medica and Pharmacy.—Dr. F. Woodbury, Chairman, 218 S. 16th St., Philadelphia, Pa.; Dr. G. W. Ewing, Secretary, Nashville, Tenn.

"A member desiring to read a paper before a Section should forward the paper, or its title and length, (not to exceed twenty minutes in reading), to the Chairman of the appropriate Section at least one month before the meeting —*By-Laws.*

Committee on Arrangements: Dr. D. C. Patterson, Chairman, 919 I Street, N. W., Washington, D. C.

WILLIAM B. ATKINSON, M.D.,
Permanent Secretary.

PROPOSED RESOLUTIONS.

Dr. Charles A. L. Reed, of Cincinnati, has indicated his intention to introduce at the Washington meeting of the American Medical Association, resolutions to the following effect, viz.:

1. That the American Medical Association extend an invitation to the medical profession of the Republics and Colonies of the Western Continent to assemble in this country in an International American Medical Congress.

2. That the Committee on Nominations be instructed to nominate one member from each State and Territory, and one each from the Army, Navy and Marine Hospital Service to constitute a committee to which shall be referred time, place and permanent organization of the proposed Congress.

ILLINOIS COLLEGE OF PHARMACY.

The department of Pharmacy of the Northwestern University (Illinois College of Pharmacy) has just held its commencement exercises.

It is now in the fifth year of its existence, and the senior class of the past term numbered forty students, of whom twenty nine have just graduated. The entire number of students during the term just past was a little over two hundred, not a bad showing for a college which admittedly maintains the highest standard of education on this continent, and which, at the same time, is the youngest.

Its requirements in time attendance are from four to six times greater than in other pharmaceutical colleges, with one exception, that college being a department of a university.

This seems to him who runs to point out the fact that a very general demand exists among the coming members of the craft pharmaceutic for a higher standard of education than that afforded by the older colleges of pharmacy, and the Illinois College, as a pioneer in that direction, has our best wishes.

SELECTIONS.

SURGERY.

CLINICAL REPORT OF FOUR MONTHS' SERVICE IN SURGICAL WARDS OF THE PENNSYLVANIA HOPITAL.

BY THOMAS G. MORTON, M.D.

One of the attending surgeons to the Pennsylvania Hospital and to the Orthopænic Hospital, Professor of Orthopædic Surgery in the Philadelphia Polyclinic, Etc.

The following very brief review of the more important surgical work which came under my care at the Pennsylvania Hospital, during my term of survice,

which has just expired (from October 1, 1890, to January 31, 1891, inclusive), may, I trust, be not without interest to the class, who have seen the cases and witnessed the operation.

At the very outset I will state that in all the surgical work, aseptic precautions, as heretofore, were rigidly observed. In quite a number of cases this was rendered difficult from the fact that patients not unfrequently were brought from a distance with their wounds already dressed, perhaps hours before arriving at the hospital. In some instances wounds which apparently had been carefully dressed were found, upon careful examination, to be impregnated with coal-dust or other extraneous matter.

In all such cases the rule was observed to have the wound re-opened, examined, and dressed *de novo*.

One interesting example of this kind was admitted in November, having been sent from the coal regions. The patient was a miner, whose thigh was crushed by falling coal. He had been dressed by a neighboring surgeon at the time of accident only brought to the hospital thirty-six hours afterward. The external wound, which was extensive, had been carefully and tightly sutured. The wound was re-opened, when it was found that there had been complete division of all the muscles on the posterior part of the middle of the thigh, exposing the sciatic nerve and the femur; numerous particles of coal and other foreign matter were found in the muscular tissues and elsewhere. The wound was then thoroughly cleansed, the divided muscles carefully approximated and closely sutured; aud in the course of a few days the wound healed promptly and the patient recovered, with good flexion and extension. It is worthy of comment that during this term of service there was not a single case of erysipelas, septicæmia, or tetanus, and no secondary hæmorrhage or other complication after any major operation, and during this same period of four months but two deaths followed operation. One of these was after an abdominal section, which will be again referred to; the other fatal result followed an amputation of the thigh, performed for a railroad crush. On account of extreme shock from the injury and loss of blood (the femoral had been torn), it was impossible to operate until twenty-four hours after the accident. Death followed from recurring shock.

Amputations and wounds incident to operation or injury invariably healed by primary intention without the formation of pus; indeed, suppuration only occurred in such cases as perineal section, supra-pubic cystotomy, etc., where the wound could only close by granulation. In one case of perineal section several hæmorrhages occurred, but it was subsequently ascertained that the patient always had been of a markedly hæmorrhagic diathesis.

He afterward made a good recovery.

The strength of the mercuric solutions for irrigation was uniformly 1 to 1000; and for the wet dressings 1 to 2000; in case of young children this was reduced to 1 to 2000 and 1 to 4000.

Whenever possible, the region of operation was cleansed on the previous day, or even earlier, and the parts were then kept carefully protected by towels wrung out of the mercuric solutions. In no case was there any toxic effect from the absorption of the bichloride solution, or any irritation from its application upon the body of the patient or hands of the attendants.

As a dusting-powder, "aristol" was used almost exclusively; it is probably a germicide and does not produce any irritation, while the absence of all odor is in its favor. It seems to be more efficient and in every way superior to iodoform, which I have abandoned in favor of aristol.

In all cases catgut was used for ligature of arteries, for approximating bone surface after resection, etc., and for closing and draining wounds, and, latterly, even for the drainage after amputation. The rubber drain was used in the chest cavity and glass tubes for the abdominal sections. Silk was used for suturing intestine and closing wounds after sections.

In the treatment of "shock," strychnia was used hypodermatically in doses of $^1/_{60}$ to $^1/_{30}$ grain, repeated every half-hour or so, and gave excellent results.

In the treatment of fractures I have nothing new to report. The dressings were always of the most simple kind: the fracture-box (which was often suspended) for legs, extension with lateral support by sand-bags for the femur, and, when union occured, molded paste-board, silicate, or plaster dressings; in fractures of the humerus, molded paste-board externally. The chest wall in many cases was utilized for the internal spint. In many of them the right-angle splint was all that was required.

In fracture of the lower end of the radius no special form of splint was found necessary; the complete and immediate reduction of all displacements of fragments makes the treatment very simple.

In explanation of the comparatively small number of fractures during a winter term of service, and especially of the small proportion of fractures of the upper extremities, it should be stated that a very large number of fractures coming to the hospital were dressed in the reception-ward and then sent to the out department. Only the most serious of such injuries were received into the wards. One hundred and four cases of fracture were taken into the hopital. Of these 69 were simple fractures, 16 of the femur, 23 of the tibia and fibula; the remaining number included the patella, scapula (1 was from muscular violence), ribs, pelvis, vertebra (spinous processes only), and upper extremities; 35 fractures were compound fractures, 6 of these involving the femur, 5 the tibia and fibula, 12 the skull, and 12 the upper extremities.

Of miscellaneous operations there were 1 supra-pubic cystotomy (stone weighed 960 grains); 1 perinephritic abcess (opened and drained); 3 preliminary ligations of the femoral artery; 3 removals of testicles (tuberculous and syphilitic); 4 perineal sections for impermeable stricture.

There were several amputations of breast; removal of

bony, fatty, and other tumors; strangulate hernia; repairing of cervix and perineal lacerations; fistula in ano; fissures and hæmorrhoids (the latter all treated with the ligature); resection of the shaft of the femur, the tibia and fibula, and humerus; opening of deep and superficial abcesses in the interior of bone and in soft parts; minor plastic operations, and resection of nerve-trunks. Taken collectively, these operations form a wide range of work. In the operative treatment of all the cases it is gratifying to report that there were but two deaths, which occurred within twenty-four hours after admission, and both of these presented almost fatal conditions when admitted.

Of 10 dislocations 2 were of the hip (on the dorsum), the others of the humerus, clavicle, and elbow (the latter in a child without fracture).

There were 10 gunshot wounds involving the thigh; in 1 case the ball pall passed through the penis, 4 were of the arm and leg, and 4 of the chest cavity; 1 of the latter cases died soon after admission from internal hæmorrhase. Nine concussions of the brain recovered.

Operations.—Five compound depressed fractures required trephining; the wounds closed by immediate union, and without any subsequent symptoms. In trephining, when possible, especially when the scalp wound is of considerable extent, I prefer not to use an anæthetic. Of 13 amputations, 3 were amputations of the thigh, 3 were amputations of the leg, and 7 were amputations of the arm, forearm, and foot. All recovered except 1 thigh amputation, already referred to.

Of 7 laparotomies there were 1 section for removal of ovaries and tubes, 1 section for purulent peritonitis.

Case I. Acute purulent peritonitis; abdominal section; death. Emil L., about 50 years of age, living some 70 miles from Philadelphia, had occasional slight attacks of abdominal pain during the preceding four or five years, but had never had any serious illness. Present attack came on about eight hours before admission. He had been hard at work during the morning, cutting and hauling ice; at noon, rode home on a load of ice; ate heartily of pork and cabbage. Pain came on suddenly after he took train for his son's home in this city, and while in the cars. Arriving in great distress, he was brought to the hospital, and was admitted into the medical ward about 8 o'clock the same evening. He was in nowise improved by treatment. On the following day, toward noon, his temperature had fallen to 97.4°; pulse and respiration increased, and a fatal termination seemed inevitable. Sixteen hours after admission an exploratory abdominal incision was made, which revealed the presence of purulent peritonitis; the bowels were covered with recent flaky lymph. The appendix was normal, and no local cause for the disease could be discovered. The patient died five hours later. A post mortem could not be obtained.

Two Cases of Abdominal Section for the Removal of the Appendix Vermiformis.—Case II. Pericæcal abscess; laparotomy; extensive adhesions; appendix not discovered; recovery, with fæcal fistula. Four months later abdomen re-opened, cæcal fistula found and closed. Recovery. George I., æt. 30, was admitted May 12, 1890, in an exceedingly prostrated condition, with a history of pericæcal inflammation, which was followed by symptoms indicating perforation of the appendix and abscess. The attack came on suddenly, with pain in the appendix region, which was greatly increased by pressure; there was nausea, fever, and constipation. Later on, there was a sudden accession of intense pain, with deep swelling and general abdominal tenderness and tympany, a fluctuating temperature, chills, and profuse sweatings. The skin over the ileo cæcal regions became discolored somewhat, but no distinct tumor could at any time be felt, yet there was hardness of the deep tissues. Such was the condition on admission, in May, 1890. A lateral incision was then made directly over the region of the appendix, which exposed a large abscess cavity containing fetid pus. Careful search failed to discover the appendix, but the surroundings were so matted together by adhesions that further exploration was not deemed prudent. It was supposed that the appendix had been destroyed by the violence of the inflammation, which had doubtlessly resulted in gangrene of the organ.

The abscess and abdominal cavity were thoroughly washed and two drain-tubes were inserted,—one of glass to the bottom of the pelvic cavity, the other, the rubber tube, into the most dependent part of the abscess-cavity. A rapid recovery followed, but a fistulous opening remained, which now and then discharged excrementitious matter, showing that an opening existed into the intestine, which was probably at the site of the appendix. In October a second section was made for the purpose of closing the fistula. The incision was made directly in line with that of the first operation; on reaching the cæcum, it was found that all the adhesions which were present at the first operation had been absolutely and completely removed. The cæcum now was readily manipulated, and it was found open, as supposed, at the site of the appendix, which had unquestionably sloughed off. The fistula was of sufficient size to admit the end of the little finger. This was closed with nine Lembert sutures. Recovery was rapid and perfect.

Case III. Appendicitis; lateral section; operation complicated by an enlarged gall-bladder; appendix amputated, and the stump inverted into the cæcal cavity; recovery. Mrs E. S., æt. 46, was admitted January 5, 1891, with symptoms of appendicitis which had existed for a week. Pain had been a prominent symptom, with elevation of temperature, abdominal distension, constipation, furred tongue, vomiting. Directly over the cæcal region there was a tumor which was movable and exceedingly painful upon pressure. There had been no chill and no sweating. The symptoms pointed to irritation or inflammation of the appendix or the pericæcal region, but not abscess. A lateral section was made on the eighth day. Upon entering the abdominal cavity the tumor proved to be an immensely elongated and distended gall-bladder, which was about 5 inches in length, lying directly over the appendix

region. A careful examination failed to show the presence of any gall-stones. The appendix was found inflamed and thickened, but quite free from any adhesions. The mesentery was then ligatured and cut away, as well as was the appendix. The stump of the latter was then inverted and invaginated into the cæcal cavity. The peritoneum was then brought together over the inverted stump by five Lembert sutures. No drainage was used, and the wound was closed with a few sutures. On the twenty-first day the patient left the hospital in good condition.—*Medical Bulletin.*

GOOD POINTS FOR STUDENTS AND DOCTORS.

Dr. W. H. Steele, in *Items of Interest*, says: Our colleges will turn out an unusually large number of graduates in the spring, who undoubtedly expect to locate in some Canaan of promise and build up a practice. It shows push and pluck for a young man to strike out for himself, much more so than to buy out a practice or partnership. We all, who have tried it, know it requires many things besides a sheep-skin to successfully conduct a practice. I will give a few points, many of which I have learned from sad experience; so that others may profit by my errors and losses.

Don't neglect your business.

Don't misrepresent anything to get business.

Don't try to economize by using cheap material or poor instruments.

Don't make any promises, either financial or professional, that you can not fulfill.

Don't lock your office during office hours to go off on a frolic, or to attend to any side show, or for any other purpose that can be avoided.

Don't try to tear down a competitor's reputation on which to build your own; it makes a rotten foundation.

Don't forget that the poor have feeling, as well as the rich, and are just as deserving of respect and your best services.

Don't be cross to the little ones; some day they will be men and women, and they will remember you for good or for bad.

Don't fail to take several good journals, and to keep yourself posted on all new instuments and improvements.

Don't buy a bill of goods because they are cheap or you can get time on them. Do a cash business, and be a cash customer to every one. It will wonderfully enhance your reputation in the community.

Don't repeat some slanderous story that may have been told you by talkative patients while operating for them.

Don't let a "good enough job" go out of your office; do your very best every time for your patient. By this means you will improve your work, improve your patronage, and improve your bank account.

Don't fail to be prompt in collecting and paying your bills, if from any cause you feel obliged to give or receive credit. By so doing you will gain and keep the confidence of all.

Don't use tobacco in any form; it is certainly of no benefit to you, and, to say the least, will work you harm physically, morally and financially.

Don't use intoxicating liquors, for intemperance is the rock on which many a good practice has been stranded, and any indulgence leads to excess.

Don't forget there will come a time when your eyes will grow dim, and your hand lose its cunning. It is when you are young, healthy and prosperous that you should lay aside something to fall back on in sickness and old age, and when you will be glad to be able to reflect that you are leaving a busy, bustling world better for the part you have played in it. A serene, satisfied old age, well provided for, must be delightful.

INGROWING TOE NAIL.

The foot and the toe were first cleansed and disinfected, an elastic ligature being thrown around the toe at its proximal end, and as near the metatarsal junction as possible. This was done for the purpose of isolating the circulation in the great toe. Local anæsthesia was then effected, by introducing the hypodermic needle of the cocaine syringe beneath the skin on the dorsum of the toe. Three or four drops of a 4% solution of cocaine were then forced out of the syringe into the tissues, and this manœuvre was continued to the right and left until about twenty minims of the drug had been injected. After the anæsthesia had been rendered complete at all points around the nail, the needle was then removed.

After the lapse of a few minutes, an incision was made from the middle and posterior margin of the nail directly backward for a distance of about half an inch. A second incision was made across the top of the toe, extending as low down as the most inferior portion of the nail on either side, and uniting with the perpendicular incision, thus giving the entire wound a T-shaped appearance. The two quadrangular flaps were now dissected up to the right and left and held apart by retractors. The nail was then slit from before backward in the median line, the incision extending through the matrix and as far back as the transverse cut through the skin. Both halves of the nail, together with the matrix, were then removed, the granulation tissue scraped out and the foot immersed in a basin of warm sublimate solution 1-2000. The elastic ligature was then removed and the wound allowed to bleed for a minute. In this way the excess of cocaine solution was washed away from the tissues. The ligature was again applied and the flaps brought into position. The space previously occupied by the horny part of the nail was packed with sublimate gauze, and the entire toe wrapped in the same dressing. A narrow bandage was applied around the toe, so as to hold the gauze in position and at the same time prevent bleeding. Over this

a protective covering was placed, which was held in position by a second bandage.

The second bandage was carried up the toe to the point where the elastic band had been applied, which was then removed and the bandage continued up the foot. A single such dressing is usually sufficient and this need not be removed for ten days.—Wyeth, *Inter. Jour. Surgery.*

On Pilocarpin in Deafness.—A middle-aged gardener, previous to January, 1890, was slightly deaf, especially during damp weather. In the beginning of that month he had an attack of influenza, from which he made a tardy recovery; and, as a sequel, was so deaf that, as he expressed it, his "Beg pardons" and "Whats" were a nuisance to himself and every body. In the middle of July, the patient consulted Dr. Macdonald, who found the following state of hearing apparatus to be present:

High pitch and force of voice had to be used in talking to patient; an "A" pitchfork sound was not heard near ear, nor when held down on table close to him; bone-conduction (same pitchfork) appeared normal; Valsalva's test showed patent Eustachian tubes; no obstruction of external auditory canal; and no observed abnormality of tympanic membrane.

He was prescribed 10 drops of tr. jaborandi, in water, thrice daily. Taken for 8 days, without the slightest beneficial or detrimental effect. On July 23, condition as above; $^1/_6$ grain of pilocarpin injected under skin of forearm; no reaction. 25th.—Hearing improved; $\frac{1}{4}$ grain given similarly; slight increase of saliva only. 27th.—Could hear pitchfork at 9 feet distant; conversation in usual tone: $^1/_6$ grain again to confirm the cure. No medication since then, and hearing remains good.

Dr. Macdonald thought the case one of "labyrinthine deafness"; and, as to the pilocarpin, remarked that that drug was said to stimulate both the central and peripheral ends of certain nerves.—A. D. Macdonald in *Liverpool Med.-Chir. Jour.*

Viault on the Increased Number of Blood-Globules in Dwellers on the High Plateaux of South America.—While studying the effect of rarefied air upon the organism of living beings the author discovered an important fact which throws some light on the hitherto inexplicable adaptation of man to life in these high altitudes. The observations were made at the mine of Morococha in Peru, situated 4,392 meters above sea level. The author's investigations revealed not only an increase in the frequency of respiratory movements, and a greater activity of the pulmonary circulation, but, what is of much more importance, an increase in the number of the red blood corpuscles.

At Lima, October 4, the blood of Dr. Viault contained 5,000,000 red corpuscles per cubic millimetre. October 19, at Morococha, having been 15 days in the mountains, the number of corpuscles had risen to 7,100,000. The examination of the blood of 5 other people on October 27 showed corpuscles ranging in number form 7,080,000 to 8,000,000.

It would thus seem that the first effects of rarefied air upon the organism is a remarkable stimulation of the blood-making function.—*La Tribune Med.*

Trephining the Spine.—From a painstaking study of this question Dr. Chipault (*Gazette des Hopitaux*) has announced the following conclusions:

1. Trephining is useless when after the cord is contused the displaced fragments fall back on to their normal position.

2. Trephining is certainly of use (*a*) when the cord is pressed between the body and the posterior arch; (*b*) when the cord is compressed by blood clots. Under these two conditions no time should be lost, since secondary degeneration sets in very rapidly.

3. Trephining is absolutely indicated (*a*) when the spinal symptoms are due to compression of the cord by fragments posterior to (*b*) when equinia, whatever the cause may be, operate at the end of some months after the condition has remained stationary for some time.—*Med. Record.*

PUBLISHERS' NOTICES.

Medical Books.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather binding. Published by Birmingham & Co. 1882. List price, $5.00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

J. H. Chambers & Co.,
914 Locust Street, St. Louis, Mo.

Dr. Coulter's Vaporizer.

The following prescriptions of Dr. Coulter's will be found very efficacious if used, by means of his Vaporizer.

For La Grippe.—Iodine one drachm; camphor and carbolic acid, of each half an ounce; oil of eucalyptus, turpentine and alcohol; of each one ounce. Vaporize and inhale fifteen or twenty drops four to six times a day. (This inhalation has proved wonderfully curative.)

For Catarrh.—Mix tincture of iodine and carbolic acid, of each half an ounce; oil mentha piperita, one drachm; eucalyptus oil and southern pine oil, (ol. pini Sylvestris, or pine needles), of each one ounce. Vaporize and inhale twenty or thirty drops three times a day and fill the room with the vapor at bed-time.

For Ozæna.—Mix camphor and iodine, of each one

drachm; liquid tar and carbolic acid, of each one ounce; oil of eucalyptus, oil of thyme and alcohol, of each one ounce. Vaporize and inhale twice a day, after washing out the nasal cavities.

For Bronchitis.—Mix oil of eucalyptus, turpentine and friar's balsam (tincture benzoin co.), of each equal parts. Vaporize and inhale every hour in acute attack, three times a day in chronic attack.

Popular Faith in Alteratives.

Since the nature of the action of this class of remedies is to some extent as yet undetermined and obscure, they are necessarily prescribed empirically. To this fact is perhaps due the promiscuous use by the public, not infrequently with the endorsement of physcians, of a host of nostrums of no real medicinal value. Many of these have had an enormous sale—indicative not so much of their worth as of the general belief in the necessity for the use of what are popularly termed "blood purifiers." Spring is the season when these are most generally resorted to.

When we consider that there is no condition of disease at some stage of which tonic alteratives are not indicated, it will be appreciated that next to agents such as opium and quinine, the action of which is specific, no class of remedies are more frequently demanded.

Messrs. Parke, Davis & Co., supply under the name of Syrup Trifolium Compound, an alternative formula containing Red Clover, Stillingia, Cascara Amarga, Burdock Root, Poke Root, Prickly Ash Bark, Berberis Aquifolium, all valuable vegetable alteratives, either with or without potassium iodide. This has been used by physicians with some success in all conditions requiring alterative treatment.

Interior View of the New Buffet Cars now Running on the Wabash Short Lines.

During the past two years great improvements have been made in the Sleeping Car department of the Wabash Line, and these cars are to-day the most perfect traveling conveyances known. The seats have been widened and fitted with high-cushioned backs, making them as comfortable as any easy chair; electric bells have been added by which any passenger can summon the porter at any hour; Buffets have been introduced, with their choice lunches, etc., and wonders have been accomplished in the way of upholstering and interior decoration. This magnificent service extends over all the Wabash Lines, and the cars are of the latest and best designs.

It would seem that the highest degree of luxurious ease has been reached in the Wagner Compartment Car. It affords the traveling public and particularly the ladies who are alone not only the greatest protection and comfort, but evil effects to health, which is the usual sequence of a trip in the old style sleeping car is avoided absolutely.

USEFUL FORMULÆ.

Antiseptic and Sedative Treatment of Hæmorrhoids.—In the *Revue de Therapeutique Medico-Chirurgicale*, the following treatment, consisting in the employment of chrysarobin with belladonna and iodoform, is recommended by Kassobudski as an equally useful application in the treatment of internal and external hæmorrhoids. For the internal hæmorrhoids, he prescribes the following:

℞ Chrysarobin, - - - - grs. xv.
Iodoform, - - - - " v.
Extract of belladonna, - - " viij.
Cacao butter, - - - - ʒ vj.

Of this are made ten suppositories, and one suppository ought to be inserted into the rectum each day. After five or six hours the pain and the tumor diminish. The treatment may continue for several months without harm.

For external hæmorrhoids the author recommends washing them with a solution of corrosive sublimate of the strength of 1 to 1,000 or of carbolic acid, 1 to 50. After this the following salve may be applied:

℞ Iodoform, - - - - grs. v.
Extract of belladonna, - - " viij.
Vaseline, - - - - - ℥ j.

Treatment of Dysentery.—Minorbi, in *L'Union Medicale*, describes a method of treatment which he has followed in twenty-three cases of dysentery. In one case a cure was obtained in a very few days. The treatment consisted in the insertion into the rectum of suppositories made in the following manner:

℞ Naphthalin, } of each - - ʒ ijss.
Cacao butter, }

Where there is ulceration or any other condition which tends to make the use of a suppository painful or dangerous, he has recourse to the following injection:

℞ Naphthalin, - - - - grs. lxxv.
Olive oil, - - - - - ʒ vj.

At the beginning of an attack, when there is a good deal of tenesmus, the injections should be given every half hour, but ordinarily it is sufficient to repeat them three or four times in the twenty-four hours. The advantage of this method is that it does not cause constipation, which opium is apt to produce.

Rossbach employs naphthalin in the following manner in this condition:

℞ Naphthalin, - - - - grs. x.
Boiling water, - - - - ℥ iv.
Decoction of marshmallow, - pint j.

This is to be used as an injection at the temperature of 100°. In children who suffer from diarrhœa dependent upon the presence of parasites in the lower bowel, the quantity of naphthalin which is employed should not be more than 15 grains in 4 ounces of oil.

ORIGINAL COMMUNICATIONS.

UNIQUE CASE OF UTERUS-BICORNIS.

BY GEORGE WILEY BROOME, M D., ST. LOUIS.

[Read before the St. Louis Medical Society, April 18, 1891.]

Pregnancy in the Left Horn.—At the end of the Twelfth Week from Date of Conception, Alarming Hæmorrhage per Vaginam set in.—Tumor also presenting at the Left Hypogastrium.—Extra-Uterine Pregnancy strongly suspected.—Expectant Treatment.—Three and a half Months thereafter a Living Child was Born.—Four and a half Months following, Laparotomy Performed for Well Defined Swelling in the Left Ovarian Region.—Cyst Size of Tamarind Orange Enucleated from the Parovarium, at the same time the Bicornated Uterus was Revealed.—Patient left the Hospital Apparently Well on the Seventeenth Day.—Now Again Pregnant.

CONSERVATISM VS. LAPAROTOMY.—SUMMARY OF REPORTS OF OPERATIONS AND RESULTS IN SIMILARLY OBSCURE CASES.

In the month of July last I received a message to visit Mrs. S., whose interesting case is the subject of this communication. The members of the household present were found in great trepidation over a sudden and profuse hæmorrhage from the patient, per vaginam. This was her first pregnancy. Physical proportions and constitutional health excellent. German parentage. Married but a little over a year previously, at the age of 15 years. The husband at the time was absent in a distant State and this circumstance only tended to intensify the excitement of the occasion. The mattress and other bed clothing beneath the patient's buttocks were saturated with blood. The heart's action was rather feeble, but there were no abdominal pains. Hæmorrhage had ceased. The os was rather soft but not yielding or dilated. A tumor was plainly visible in the left side. Area of dulness, extent of which, as nearly as I can outline it, is shown by the accompanying zinc etching. (Fig. 1.)

My mind was strongly impressed with the belief, that I had to deal with an ectopic pregnancy. It was true that the hæmorrhage was per vaginam, and that it seemed now to be completely arrested; yet here was a tumor following immediately upon the sudden hæmorrhage, as I supposed, and the tumor appeared, so far as the natural anatomical landmarks indicated, to be outside of the uterus, presenting as it did, most prominently along the anterior border of the ilium. In the median line dulness was absent.

I sat by the patient's bed-side, perhaps an hour, and as her condition improved somewhat during this period of time, I determined to treat the case expectantly. Fortunately as the sequel may prove, the conservative course proved to be exceedingly judicious.

I was not again called to see this patient until October 20th, last. This was a few days over three months after the visit to which the above has reference. I found, now, that the tumor, in the left side, had increased considerably in size. Its upper end having reached a point parallel with the lower border of the costal cartilage. The os was soft and dilated. The patient complaining of frequently recurring pains in the abdomen. No hæmorrhage. She stated that she had been confined to bed almost constantly since Wednesday—this was the following Sunday—suffering much in the same way, having slept but little during these four days, in consequence of the uneasiness in the region of the tumor. After the lapse of about three hours, during which time she was given chloroform, by inhalation, at intervals, a living child, weighing three and a half pounds, was expelled through the natural passages. There was no unusual flooding.

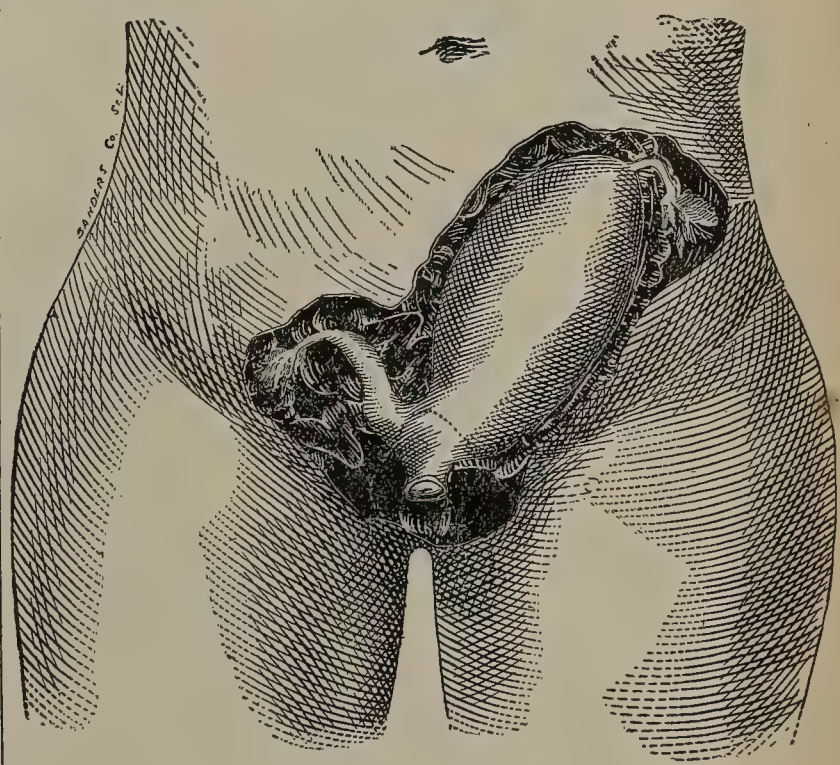


FIG. 1.

Aside from the deformity of its legs and feet, the child was very small and puny. After thirty-two hours it expired. The figure which is shown in outline fairly illustrates the positions of the feet and legs at the time of its birth. (Fig. 2.)

The patient had regained much of her former physical weight and strength, when, some time during the month of February, she consulted me for dysmenorrhœa and almost constant pain in the left side, and increasing in severity at each recurring menstrual period. Upon examination a well defined swelling was found in the left ovarian region. After watching the case for about thirty days, I on March 1st, last made a laparotomy, and removed a small cyst from the par ovarium, and at the same time discovered the peculiarly shaped uterus, which is very beautifully illustrated, from a pen and ink draw-

ing, by this excellent zinc etching, executed by the Sander's Engraving Co., of this city. (Fig. 3.)

The round body, outlined by the shading underneath the left tube, in fig. 3, represents the tumor which I removed.

I wish to state in this connection that Dr. A. C. Robinson, of this city, was present with me and he too made a very careful examination of the uterus through the abdominal incision.

The patient returned home at the end of seventeen days, after having made a rapid recovery. During the convalescence she menstruated without the slightest pain. Within the next twenty days, after leaving the

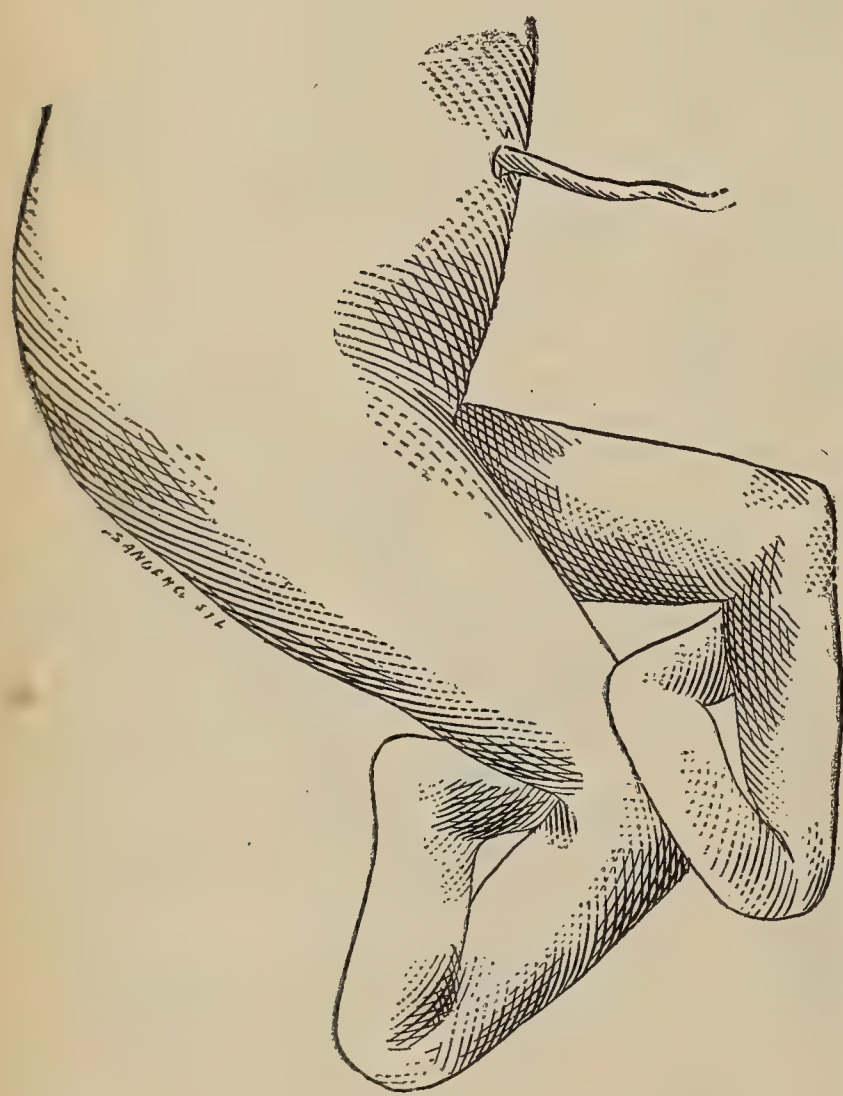


Fig. 2.

hospital, her husband reported that his wife had again found herself pregnant.

The particularly instructive features in this case relate to the peculiar condition of affairs presented at my first visit, and also to the fact that the problem of a uterine horn being able to expel a fœtation, of living proportions, seems to be solved by the results in this case.

Now from what may determine our conduct, under the seemingly urgent circumstances surrounding such a case, may be able to approximate judgment, by what appears in the literature of the subject; which, by the way, is anything but rich in volume. To my knowledge history does not contain the record of a similar case.

Greig Smith, in his excellent treatise on "Abdominal Surgery," does not record a single case, and in the other now celebrated English work which has helped so much to dignify gynæcological practice above the mere use of a sponge tent and a pledget of cotton, the author speaks of but two cases which present any resemblance to the one I have just reported.

Both of those recorded by Mr. Tait were reported through Sir James Y. Simpson some twenty-five years ago. Death in both instances was the result of the pregnancy in the left uterine horn, respectively: In one case the horn ruptured and the fœtus escaped into the cavity of the peritoneum. In the other case the fœtus was retained in the left horn after the full period of utero-gestation, at which time severe labor set in and upon examination the os was found low down in the vagina. There was an enlargement of the abdomen extending a little to the left side, and nearly of the same size and shape as a uterus, containing a fœtus at the full period of utero-gestation. The fœtal heart was easily heard, and the motions of the child were strong. The pains were very severe and complicated with convulsions for a whole day in spite of a free use of chloroform, which only modified them. The pains continued for several days, and then the patient began to go about as usual, to the astonishment of her friends and neighbors. The enlargement of the abdomen became gradually less, so that at the time of her death (which took place six months after the date of the supposed labor) it was not more than one-third of its original size when first seen. The parts, including the empty uterus and appendages, were carefully removed at a post-mortem examination. The most prominent feature found in the specimen was a large irregular ovoid sac measuring about twenty-seven inches in its greatest circumference. The sac contained a male fœtus apparently about the full time, which was attached by a funis one foot in length to a shriveled placenta, which in turn, was connected to the inner surface of the sac.

In these two cases conservatism was perhaps not the best course to pursue. On the other hand the more active measures have been adopted in several cases of pregnancy in bicornated uteri, although the real condition was not known, in either case, until disclosed by the operation.

Mundé reports an exceedingly instructive case in which a laparotomy was made for a suspected extra-uterine pregnancy. The woman had had one child several months before she placed herself under his care at the Mt. Sinai Hospital, in May, 1889. She had last menstruated four months before entering the hospital. There were the usual signs of pregnancy. A tumor of the size of two fists extended over toward the right side. A small mass could be felt projecting from the left side of the tumor, which he took to be the fundus of the uterus. He felt so sure of this that he introduced a sound into it, which entered barely three inches to the left. The mass on the right was elastic, but had not the feel of the pregnant uterus, and did not contract under examination. The woman had had a bloody dis-

charge at intervals, and pieces of membrane were said to have been passed. There had been much pain in the tumor on the right side for at least a month, so severe that it had led her to consult a physician. In the light of these conditions Mundé unhesitatingly diagnosed it a case of tubal pregnancy. Fearing rupture, he at once obtained the consent of the patient and her friends to an operation, and did laparotomy two days after he first saw her.

He was much surprised, on passing his hand into the abdominal cavity, to find that the peculiar irregularity of the tumor had disappeared, and that nothing could be felt except what seemed to be the normal pregnant uterus. He was rather nonplused; but he had the sound passed again by his assistant, and it went to the left side to the depth it had entered the same side before. It at once occurred to him, that he had an interstitial pregnancy to deal with, which condition he thought was quite as dangerous as the tubal pregnancy he had expected to find. He therefore decided to remove the amniotic fluid by aspiration, draw the uterus out of the abdominal cavity, open it, remove the ovum, and sew the horn of the uterus to the abdominal wound. At the first attempt at aspiration he struck the placenta (as the specimen afterward proved). Two more aspirations were made,and about one-half the amniotic fluid was removed In order not to prolong the operation, he lifted the uterus out of the abdominal cavity, when it was observed to be apparently normal in outline. He had the sound passed again and it went to the *right* to the very point where he had aspirated. Then the assistant who passed the sound said that he felt the septum of a two-horned uterus; and that is what the deformity proved to be.

The uterus was returned, the abdominal cavity closed, and, as expected, the patient miscarried that night. The specimen showed a large blood clot at the surface of the placenta where he had aspirated. The temperature did not rise above normal, and the woman made a rapid recovery. Subsequent examination with two sounds confirmed the presence of the uterine septum.

The cervix was lacerated on the left side, which shows that the previous pregnancy was on that side; this fact, in conjunction with the more or less constant pain in the pregnant right horn (which in a normally developed uterus would scarcely be present), led him to believe that the right horn was in a state of rudimentary development and might have burst before long.

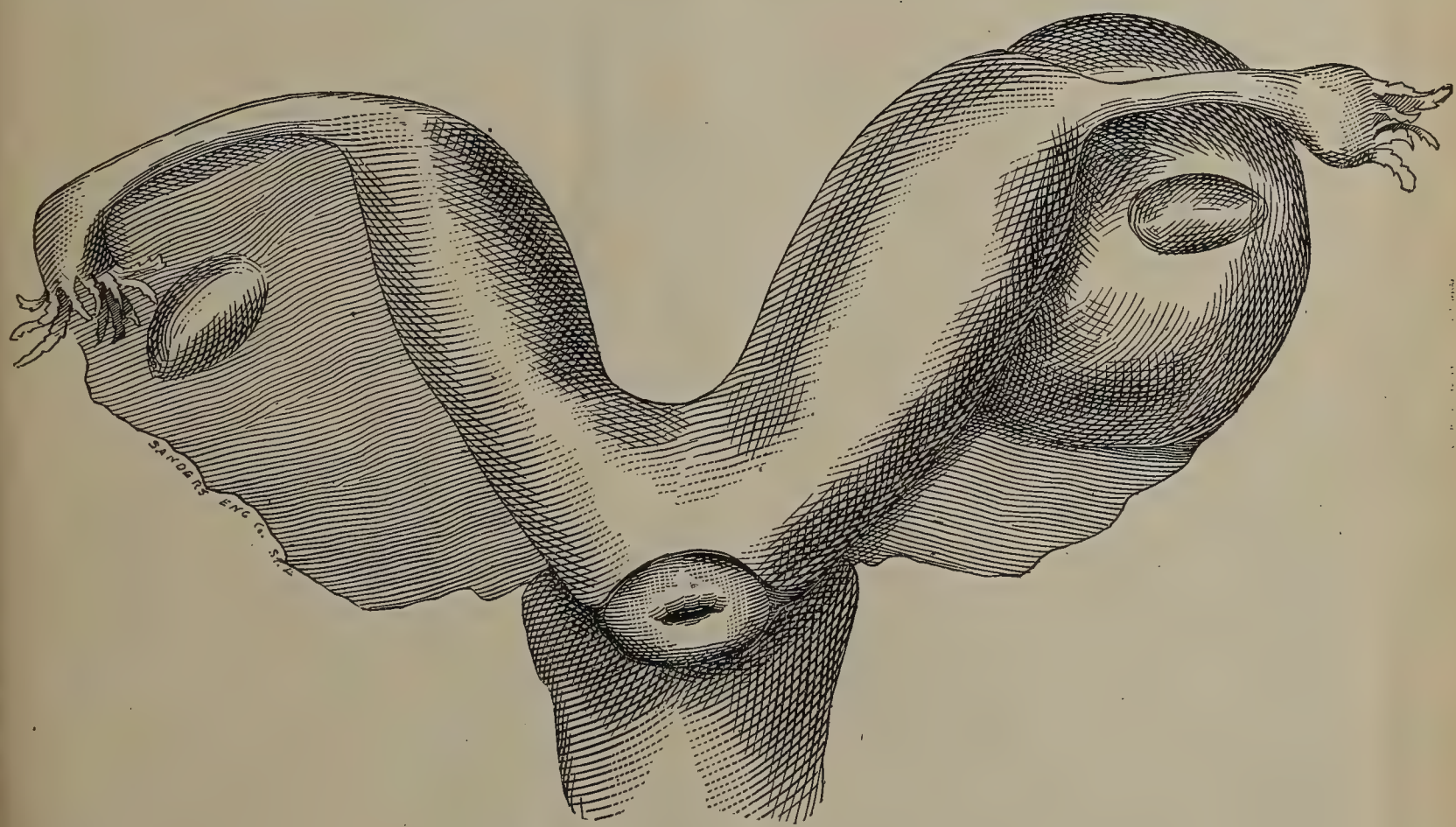


Fig. 3.

He did not see how he could have made the diagnosis in the case unless he had accidentally passed the sound into the dilated pregnant right horn. He therefore thought that the diagnosis of tubal pregnancy cannot be made with as much certainty as is supposed. Fortunately this case turned out well, except that the fœtus was lost.

VanderVeer has collected and recorded, including his own sixty-eight cases, in all, of "Concealed Pregnancy," in each of which the result of the laparotony revealed an error in diagnosis. Five of the cases, including the one just referred to, were found to be pregnancy in bicornated uteri. In one case the diagnosis before the operation was fibro-myxoma of the uterus; in two the operations were simply exploratory, and in the other case the diagnosis was extra-uterine pregnancy. In two

cases the pregnancy existed in the right horn of the bicornated uteri; one was interstitial and the other in one horn, the particular side not stated. Four of the women recovered. Whether or not pregnancy again occurred in either of these cases is not a matter of record, but their subsequent history would, no doubt, prove to be exceedingly interesting. It is my intention to keep careful record of the progress of the case I have reported to-night, and at some future time publish the same.

ON SOME FORMS OF VAGUS NEUROSES.

BY L. BREMER, M D., ST. LOUIS, MO.

The vagus nerve, besides being the most complex in its function, is at the same time the most interesting, and has, consequently, been more frequently the object of physiological and pathological experiments than any other nerve in the body. In spite, however, of the oft-repeated efforts by experimenters to establish the various functions of its many divisions and branches, a great many of these functions are still only partially known, and contradiction and disharmony still prevail among investigators, in regard to some of the most important points. It is, perhaps, due to this fact and to the difficulty which necessarily surrounds all experiments on this nerve, owing to its intimate relation to all the vital processes, that its diseases and ontological conceptions have not received that attention from pathologists and clinicians which those of most of the other cranial nerves have. Perhaps this nosological defect is also in part due to the too general involvement of the nerve, and its various branches in quite a number of neuroses, principally neurasthenia and hysteria; for the natural history of these affections is at the same time that of vagus disorders.

The kind of vagus disease which I am about to discuss is not, however, one that affects the vagus in all or the majority of its functions, but which is confined to the respiratory portion, principally.

In order to at once define this class of disorders, I shall briefly give the following history of a case in point:

M. M., a girl, æt. 13, coming of neurotic stock (mother hysterical, father alcoholic), was healthy up to her 10th year. At this age she had the measles, left the bed without being well, went out into the cold, and soon after had a pain in the region of the stomach, which for four years returned every day for a shorter or longer period, lasting from half an hour up to one and two hours, usually in the afternoon. At times she had several attacks a day.

After these periodical painful seizures had occurred for about four years, they stopped suddenly one day, and just as suddenly did she commence breathing very deeply, slowly and laboriously. Status Præsens:

When I examined the patient, the number of respirations which gave to the observer the impression of forced ones was twelve, and even down to eight, a minute. All the muscles of voluntary respiration, notably the scaleni and sterno-cleido mastoidei, stand out very prominently during the inspiratory act; the chest is abnormally expanded; the shoulders are raised and the back arched; the left shoulder is raised higher than the right; the head is inclined to the right; this has become an habitual position. All these peculiarities are still more pronounced on even slight physical exercise, or during excitement. It is impossible for her to run or even walk briskly; and to ascend a flight of stairs is to her an extremely difficult task. When she lies down and keeps absolutely quiet, these dyspnoic phenomena disappear to a great extent, and a deep inspiration takes place only every ten or fifteen minutes, while the others are more shallow and quicker.

On attempting to walk briskly or to lift a weight she has to yawn, and the dyspnœa becomes excessive. The pulse is between 70 and 80, appetite good, and the functions of the rest of the body generally in a normal condition.

This state of affairs has lasted about ten months. If an analysis of the case be attempted, the history furnishes the not unusual fact (in neuroses) of the substitution of one disorder for another; the epigastric pain (probably due to an irritation of the sensory branches of the vagus) gives way to attacks of dyspnœa. In the light of the anatomical and physiological relations of the stomach and lung, which are both innervated by the vagus, this conversion of one affection into another, would perhaps not look strange, and come readily within the scope of our understanding, though we are unable to explain it. We have to be satisfied, in lieu of an explanation, with the fact that there exists analogous alternations in clinical pathology.

Further, the sudden onset of dyspnoic respiration would on first thought suggest a focal lesion in the oblongata, *i. e.*, in or near the respiratory center. Respiratory troubles, as exhibited in our case, are most frequently observed in apoplectiform paralysis and in Duchenne's disease, both of which affections have their anatomical seat in the oblongata and pons.

Again, this kind of dyspnœa reminds the observer of certain cases of tabes, in which the vagi have undergone grave degeneration, and in which that type of respiratory disturbance has set in which is experimentally produced in the rabbit, *i. e.*, at regular intervals, and about eight or ten times in a minute abnormally deep inspirations succeed each other, each one of them followed by an apnoic respiration pause.

Yet it is not probable that the nerve trunk is in any way affected in our case; there are no clinico-pathological data authorizing us to assume its lesion in the peripheral terminations in the lung tissue; it is much more probable that the nucleus of the vagus in the medulla oblongata is the seat of the lesion. It has been experimentally established that this conglomerate of gan-

glionic cells is in closest functional relation with the respiratory center of the respective side, although just where that center is situated, is not, as yet, positively ascertained. This center, as is well known, is an automatic, a self-adjusting one; for, after all, the afferent nerves by which exciting impulses might be conducted to it, have been cut, it still continues to discharge its functions, stimulating the efferent nerves of certain sets of respiratory muscle-areas, so that its functional activity must depend on the excitation brought about by the state of the blood contained in the capillaries traversing and surrounding the center alluded to. In fact, it has been satisfactorily demonstrated that it is in the variations in the amounts of O and CO_2 in the blood, which is the ultimate cause of the rythmical action of the center of respiration, and that the peripheral efferent branches of the pneumogastrics play only a subordinate part in the process.

It is, therefore, in the highest degree probable that, in the case described, we have to deal either with an abnormal condition of the blood, a defective manner of its distribution to the automatic centers, or with an inherent, possibly inhibitory disturbance of the functions of the ganglionic cells, composing the center. It is to my mind impossible to tell, with apodictic precision, which of these conditions prevails in the case under discussion. But it seems to me that the theory of a temporary spasm of the oblongata vessels supplying the center is plausible enough to be adopted. The whole clinical picture, especially the inability to undergo even slight physical exertion without the respiratory abnormality becoming accentuated, and the excessive yawning denotes oxygen hunger of the whole organism, brought about by the inadequate activity of the center of respiration, the respiratory surface of the lungs being intact. Therapeutically, strychnine proved of benefit. This was given on the strength of an experiment which by various physiologists has been made with great uniformity of results.

If in a dog, *e. g.*, the medulla oblongata, and with it the respiratory center, be severed from the spinal cord, respiration will still go on, though with diminished frequency; instead of from 14 to 18 a minute, there will be only 4 inspirations which are, however, very deep. This shows that besides the chief center in the oblongata, there are subsidiary centers in the cervical portion of the spinal cord. If now strychnine be administered to the animal, the respiratory movements become quicker and more effective. By the administration of strychnine, then, the reliable and powerful spinal excitant, I hoped to influence the respiratory process even independently of the oblongata center. The result seemed for a time to prove the correctness of this physiological reasoning; but after the improvement had lasted a few weeks, the remedy seemed to have exhausted its virtue. I now tried the fluid extract of quebracho in small doses (6 to 8 minims) under which the breathing improved steadily. In the course of several months she breathed normally.

Quebracho is accounted among the paralyzants of the centers of respiration; this, I take it, is probably true only of the toxic doses. My clinical experience with the drug leads me to believe that in small doses its action on the respiratory center is not only an exciting, but an invigorating one.

Another case, which was under my care for a number of months, presents some features, to some extent explanatory and corroborative of the foregoing statements.

E. F., æt. 36, married, comes of a healthy mother, but his father was a drunkard. He was from his childhood up, of a retiring, often of despondent disposition; was always a coward, easily scared; could not run or play like other boys, and used to blush excessively on the slightest provocation. From slight emotions he would get out of breath. He never drank or smoked not even moderately, because of the disastrous effects produced by either alcohol or tobacco on his nervous system. For years he had been troubled with a pain which he qualifies as of a crawling character in the epigastrium; this pain is attended with more or less difficulty of breathing. Sometimes this crawling sensation rises up to his throat, where it settles, producing a choking sensation. He suffers from indigestion, and vomits frequently.

The patient, a blacksmith, and still pursuing his trade, looks pale and emaciated. When sitting still, and being by himself, he breathes naturally and without any difficulty; but as soon as he undertakes to talk, he has at intervals, to bend his body forward, steadying the upper extremities on the thigh, so that the shoulders are raised; in this position he half rises, then drops back on the seat; after which he feels more comfortable for a time. Sometimes when the want of breathing is specially oppressive, he walks and stoops every once in a while. He claims that it is more fatiguing for him to talk than to work at his trade. He is subject to vertigo; and always has been a sufferer from headaches and dyspepsia; the cervical spinal processes are painful, also the muscles of the nape of the neck; there are occasional twitches of the facial muscles and he is often troubled by epigastric pulsation. The heart intermits at times. As soon as he becomes aware of this, as he usually does, a fright comes over him; he feels his pulse; gets still more frightened on ascertaining the intermission, and it gets weaker and slower. Precordial pain and anxiety supervene, and for a time he is physically and mentally in the most wretched condition.

After sexual intercourse, which he claims is necessary for him twice a week, on account of a swelling of the testicles and a number of annoying sensations in these organs, the dyspnoic symptoms are aggravated.

The one symptom that strikes the observer above all others in this case, is the very peculiar movements which the patient goes through in order to fill his lungs with air, in order to relieve the oxygen-hunger. On imitating it I find that it is a simple and easy way of bringing on a deep inspiration. By bending foreward

in the sitting posture the abdomen and its organs are pressed against the diaphragm, and the air is expelled from the lungs, the raising of the shoulders by steadying the slightly bent arms on the thighs, the capacity of the thorax is increased, and by raising himself, the diaphragm, following the traction of the abdominal contents, descends, whereas the intercostal spaces are widened, thus causing the air to rush into the lungs.

In this case, also, the central vagus disturbance is in the foreground, but unlike the one first described, it offers heart and stomach symptoms, in fact, the whole pneumogastric, or rather its centers and its neighbor, the vaso motor center and slightly the nucleus of the facial nerve are involved. In his case the respiratory vagus neurosis is only an incident or episode, as it were, in the long train of symptoms of grave congenital neurasthenia. This patient was born with weak and unstable vagus, which was unreliable to such a degree that it stamped him a weakling from birth.

No drug, as might have been foreseen, was of any avail in this instance. With the ups and downs of his existence as a comfirmed neurasthenic the respiratory trouble would get better and worse.

Affusions of cold water seemed to be the only means which, together with a regulated diet had a good effect on the distressing symptoms. The every day observation that aspersion of cold water to any part of the surface of the body will produce a deep inspiration, (by reflexly exciting the respiratocy center) explains this result.

I have treated, besides theae two, a number of cases of a class of neurasthemia, in which the vagus symptoms were less obtrusive, but obvious enough to call for vagus therapeutics.

Aside from the cold water (the use of which, however, many neurasthenics do not at all bear, strychnine and quebracho (in the form of the fluid extract) seemed to be the most uniformly successful remedies, although I have to record, as might be expected, a number of failures).

Especially, in women with weak and irritable centers, quebracho seemed often to have a surprisingly beneficial effect.

Lately, I have used the aspidospermine, its impure alkaloid, instead with satisfactory results.

A KNOWLEDGE OR A TIME REQUIREMENT.

A Plea for a More Rational System of Medical Legislation.

BY YOUNG H. BOND, M.D.,

Dean of the Marion-Sims College of Medicine, St. Louis, Mo.

The very general move in the direction of medical legislation, during the past year or so, indicates the urgent demand, on the part of the profession, for the just and proper regulation of the practice of medicine. In addition it is significant of the increase in competition and of the growing metamorphosis of the art of medicine into the science of medicine, of which the precepts and teachings follow such fixed laws, that he who studies may learn.

The Nineteenth Century.

Our nineteenth century is a wonderful one—the like of which has never been seen in the whole compass of earthly years. Born during the great struggle of freedom against tyranny and oppression, living through the downfall of the ancient superstition of the divine right of kings, it is about to make its exit from a world whose democracy is stamped in every act and whose parting requiem to the hoary century will be "*Vox populi, vox Dei.*" The people—the Demos rule. Throughout this whole century an equalizing power has been exerted which has been so thoroughly engrafted upon the lives and actions of men, that it has become the spirit and temper of the age.

Such a condition must have a positive bearing upon our civilization and its effects may be concentrated in the one expression, competition. Fair, open competition is the life of our institutions, but when it begets expulsion, it becomes the very bane of their existence.

Mechanics and Doctors.

"Too many mechanics" is the cry, and forthwith in not a few branches of labor, an elaborate system of restriction is practiced and the number of artisans is maintained small by control of apprenticeship vested in the workers of that special line. As a consequence we find an undue limitation of the number of apprentices, and an equally undue extension of the time of apprenticeship, all because those within the inner circle fear honest competition.

What a decided similarity, certain misdirected members of the medical profession would encourage between their high-aiming profession and these restricted divisions of labor. Do we not hear on all hands the cry: "Too many doctors, too many medical colleges, let both be limited." Again, like the apprentice-restricting mechanic they say: "Make them study longer, make the restrictions greater," in face of the fact that they who rant and cry "reform" underwent the application of no such law, nor would. They cry very lustily "The wolf, the wolf" but fail to protect their charge by just and equable safe-guards, preferring, it appears, to resort to artificialities.

Medical Legislature.

It is a sad feature for our vaunted, fraternal and unselfish feeling for one another, that such an affair as medical legislation is necessary. Its origin, coeval with that of medicine, dates back to the time of Hippocrates, whose stringent oath formed at once an obligation and a text for future laws. Throughout the middle ages medical laws prevailed, though more or less crude. In these more modern times medical legislation is an ele-

ment in every civilized set of laws, some natural and just, others artificial and presumptuous.

Our own country is at present in the throes of the subject and each state is prodded here and there, with persuasive prayers or emphatic demands, emanating not from the people but from the doctors. The consequence is that many legislators and the public look upon the medical profession as a band of sycophants, always boasting of their professional regard for one another, yet, ever anxious to outdo each other, ever seeking protection, yet, becoming the most violent and persistent of persecutors.

Is it strange that sarcasm should, now and then, creep into our legislatures, such as, for instance, the bill introduced by a Missouri legislator, fixing the uniform rate of $1.00 for visits, and fifty cents for office consultations? Other bills, of a like strain, have been presented, a recent one being an act to compel each physician to advertise in the local papers his name, age, years of practice and source of medical diploma. A more recent bill introduced in the Texas Legislature exhibits more severely the ridicule and sarcasm that such endeavors entail. All this is medical legislation.

Every time a State Legislature meets there is a pilgrimage of doctors to the state capitol, asking that certain laws be enacted, the sum and substance of all being the lessening of competition and exaltation of the few.

Some years ago the animus appeared directed toward the annihilation of quacks and impostors. Much good was accomplished, but the more the charlatans were persecuted, the more they prospered, and to-day according to the provisions of the courts, the only restriction is "Thou shalt not lie." They may advertise what they will, so long as falsehood does not appear.

The people did not eventually look so kindly upon the efforts of the profession to efface quackery, not as has been so often represented, because of their desire to be humbugged, but because they knew there were two sides to every question, and because they felt certain that so notable an effect must have some deep-seated cause. Adding to this the great stampede of doctors for medical legislation they arrived at the conclusion that doctors were, perhaps, actuated by selfish motives, just as much as by their interest in humanity, and they decided that opponents and prosecutors should not be made judges and executors. What was the result? We hear of the Board of Health being refused support year after year; in more than one case the Board has been compelled to cease its prosecutions as a condition of its existence, and in one notable instance, the official member was compelled to resign in order that an appropriation might be made.

The Three-Course Requirement.

The contest for a three-course qualification is far more in opposition to democratic principles than what has just been mentioned. The *raison d'etre* of its advocacy by the profession is evident. Shuddering at the laxness of its conditions it seeks to improve itself. Commendable, indeed, for there are many doctors who do not deserve the title and whose knowledge of medicine is confined to exceedingly narrow limits. Many are graduates who attended two courses, some three courses, others, perhaps, still more. I too agree that this is due to the fact that two years of attendance at a medical college has been the standard of license. But, believe me, I consider this the fault of the whole system and not of the lack of a three-term requirement.

If these doctors, if all doctors, would have been examined by a Board, the number of ignoramuses would have been immeasurably less, in fact, would be *nil.* What assurance have we that the adoption of a three-years course will change the existing order of things? Will the fact that three years are required make the professors any better as teachers, or the students any more faithful? Will it not encourage laxness on the part of the teachers and idleness on the part of the students? It is, indeed, plausible to consider that many students will spend their time after the fashion of so many of their continental co-workers whose time and money wax so heavy on their hands that they spend the half in riotous life and dissipation.

Of courses if the instruction is improved coincidently and the examinations made more rigid and effective, in so far will good be accomplished. This is, however, by no means due to the lengthened course, but to the knowledge requirement which has been added.

The Knowledge Requirement.

And here is just where I rest my oars, in the calm and righteous waters of knowledge. Knowledge the basis, knowledge the foundation, and knowledge the standard of qualification and excellence.

Make the two or three course student pass a satisfactory examination before a competent board, and you settle the question at once upon a basis both rational and just. No school's *ipse dixit* is taken; all submit to a fair and impartial test. Under this system a student who is a good chemist, on account of his academic education, need not worry through two or three years of reiteration of what he already knows, and the capable druggist will be saved much time that otherwise he would squander in listening to lectures, useless to him. Equally would there be given to a nurse of experience or to one who had much to do with invalids, the opportunity of deriving whatever benefits he deserves, and not to be hampered by a time requirement, the same for tyros and for more experienced students.

With three courses a compulsory condition to graduation, a competent graduate of a good two-years school, whose professors have been conscientious, would be denied the right to practice and to exercise his hard-earned knowledge, as he should, while the incompetent graduate of a three-term college of the most questionable reputation would at once, by the power and might of an unjust act, enter into the joys of the professional kingdom. Observe, the whole system which should be

an encouragement to industry and knowledge, by reason of the unnatural restriction of time, simmers down to an impalpable and foolish mixture of sentiment which is both unreal and ridiculous. Unreal, because its basis is artificial and inefficient; and ridiculous, because its application accomplishes but slight improvement at best, and that at the expense and hardship of injustice to the very men, whose entrance into the profession is so desirable.

It is evident, then, that the three-term qualification places us no nearer the goal of our efforts than we are at present, for under its action, as now, the whole matter of licensing practitioners would rest in the hands of the professors of medical colleges—interested parties, and not vested, as it should be, by the divine right of the people, in a board whose standard is knowledge and fairness to all.

Yet so long have doctors advocated the deification of time in this particular, that what should be the foundation of medical legislation is overlooked, yea ignored, in the fettish worship of the time god.

This appears the more astonishing from the fact that the knowledge requirement is such a taking argument with legislators and men whose work and study is law-making. In the recent consideration, before the Missouri legislature, of the three-course measure, the bill was lost, not as has been falsely represented, by personal influence, but because the senators saw the fallacy of considering time, and not knowledge, as the proper requirement.

To say that every medical student shall attend for three years a medical college is to minimize the difference which exists between intellects, and to deprive many a competent man from enjoying, on account of a few paltry dollars, the fruits of his industry and knowledge, thus defeating the purpose and sense of all law.

I believe in trusts of no kind, and I most decidedly enter a protest against what is nilly-willy a medical students trust. Any combination having for its avowed purpose a limitation based upon a standard which is unjust, which dictates unfairly and summarily, and which excludes deserving individuals from the enjoyment of such rights which, by virtue of their knowledge, they should have—when such a combination exists by agreement, it must answer to the name of trust. As such, it is detrimental to our country's interests, and is in direct opposition to the old sterling principles of our government, that each man should receive fair treatment by the laws and that justice be given in accordance with each man's deserts.

Foreign Doctors.

Much has been said of the superiority of the European doctors over the American production, a statement whose deprecation is accompanied by the information that the fault is in the two-years' course. Again I beg to take issue for the palpable reason that the rigid examination to which each foreign student is subjected, furnish proof which no argument as to time can belittle.

In Germany two examinations are held, the university and the state, each being independent of the other. It might be interesting to mention the number of rejections by the Prussian state examiners of those who had already passed the university examinations. In the year 1890, out of 563 applicants, 231 or 29.09% failed. Forty per cent. of the applying graduates of the University of Berlin were rejected. Where in the efficiency of the long term school compared with a good examining board? Certainly there is much valid argument in this little statement of the Prussian examinations.

In France the whole matter is left to six medical faculties who constitute virtually six examining boards and who alone are authorized to issue diplomas to students of all the French schools.

In England, while the diploma issued by the university faculties (in themselves almost equivalent to an impartial examining board) carries with it a licensing power, the various royal colleges make examinations granting to the successful applicant what is distinctive evidence of the knowledge he has acquired.

Austria and Russia have laws similar to Germany, and hence present a proper solution of the question.

These illustrations are given to indicate as clearly as possible that the circumstances of the high intellectual standing of European physicians depends upon the constitution of what is equivalent to examining boards and upon the strictness of the examinations rather than upon the number of days, hours and minutes devoted to medical study.

It is a very serious question whether or not the unamerican legislation based upon a time requirements and excluding all who do not comply with its provisions is constitutional. Certain it is that the recent resolutions of the various boards of health, which define the term "college in good standing" to signify a three-term school will not hold in any court in the land. Efforts on the part of boards of health, such as has just been indicated, are valueless as they are misdirected. Any college which fulfills the significance of the term "college in good standing" at the time of the passage of the act, can by mandamus compel the board to grant licenses to its graduates.

A more rational definition of the term, the Board might adopt, to-wit: Such colleges, all of whose students are able to pass a satisfactory examination before the Board of Health. It does seem to me that this would be equally as legal and far more satisfactory and just.

Objections to a Three Course Requirement.

1. It possesses an eroneous basis, viz.: the standard of time and not of knowledge.

2. It is unfair in that it takes no cognizance of the superior intellectuality and industry of students.

3. It allows no credit for previous work and study, no matter how extensive, unless pursued regularly in a recognized medical school.

4. It is unjust because it works a hardship upon de-

serving young men who happen to be poor in worldly goods; the rich are thus given the advantage and preference.

5. It perhaps would encourage laxness of teachers and indifference of students.

6. The ends would not be accomplished because second class colleges would exist under its enforcement just as well as now and they would be equally well patronized.

ADVANTAGES OF THE EXAMINING BOARD.

1. It possesses a just and rational basis, that of knowledge.

2. Every student would perforce depend upon his own efforts and zeal, and would not be indifferent of his studies unless he was not anxious to practice.

3. It is impartial, the rich have no advantage over the poor.

4. The licensing power being taken away from the medical colleges, their instruction, by the sheer force of competition, would be the drawing card, for students would go where they could learn most, rather than where they could most easily graduate.

5. Second class colleges (and by this I mean those characterized by loose management and incompetent instruction) would be forced out of existence, because so many of their graduates would be rejected by the various state boards.

In conclusion let me restate a remark that I have already made, to the effect that it will be easy to convince the legislators of the wisdom of this measure; it is so thoroughly in keeping with fairness and right that to the law-makers it so smacks of the very essence of all law, that they advocate it in preference to all other measures.

Then let the right prevail; relieve the boards of health of the annoying duty as censors of the medical profession, and dictators of medical colleges; let the State's money be expended not for the compilation of statistics, their publication and circulation, of value to the doctors alone, but for the prime object of such a board, the hygiene of the State; let the impartial board of examiners pass on every new graduate who seeks the privilege of practicing in the State.

In such a commonwealth, the law of medicine will be the law of fairness, democracy and right and the licensed doctor will lie more comfortably on the bed of roses, nurtured by his own industry and the incompetent one will seek some more congenial occupation.

Three results will obtain:

1. An ever increasing number of good, competent and worthy doctors.

2. An ever decreasing number of unworthy, unprofessional and incompetent physicians.

3. Medical colleges upon a higher, better and more intelligent plane.

Grand and Page Ave.

PHYSICIANS and other readers of the REVIEW should not fail to examine its advertising pages, where much that may prove of interest will be found.

WEEKLY MEDICAL REVIEW.

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When a manuscript is sent to this REVIEW, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

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Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the ST. LOUIS WEEKLY MEDICAL REVIEW, 520 Olive Ltreet.

All letters containing business communications or refering to the publication, subscription, or advertising department of this REVIEW, should be addressed to THE MEDICAL REVIEW ASSOCIATION, 914 Locust Street, St. Louis.

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SATURDAY, APRIL 25, 1891.

THE "KOCH" REMEDY IN VENEZUELA.

(*La Medicina Ceentifica.*) From Caraccas the following is announced, viz.:

The results of the "Koch lymph" have been highly satisfactory. It is reported that Presbytero Soto, upon whom it had been used for a terrible condition of tuberculosis, calls himself to-day almost restored.

El Radical, of February 5, declares, referring to the same case: We have information from very reliable sources of the excellent progress of the effects of the lymph of Dr. Koch, in the person of Presbytero Soto, who, exceedingly reduced and near death's door from debility, now regards himself as well on the way of convalescence, light-hearted and much encouraged by its effects.

In our opinion, without interrogating the doctors, this case is like a resurrection, such was the state in which we saw Soto before the employment of the lymph.

Lupus.

Among the ploughmen of La Poe, Bolivia, lupus very frequently occurs, a disease known there as (boton de oro) gold button. The Indians who are attacked have a very simple method of cure, followed always with a good result. This consists in covering the affected surface with some vegetable leaf possessing resinous qualities and maintaining it upon the part affected for one or two months, thus excluding the atmosphere rig idly and entirely. When this time has passed, all vestiges of lupus have disappeared.

Lupus, among the ploughmen of Zungas, having syphilitic character, does not fail to be cured by the ab sence of atmospheric contact, which appears to be the only cause of its invasion and propagation.

Marital !

Having no legitimate heading in medical matters for this announcement, we create one for the occasion.

The anticipated day arrived! The expected event has been enacted, according to programme. Dr. Cale and Miss Hobart were married on the 8th inst. Prophecy has now become history; this, the most distingue event in socio-medical circles that has transpired for many years, was celebrated at Christ's Cathedral amid beauty, gayety and imposing ceremony, all hallowed by the sentiments of affection and friendship. The happy pair, with benedictions of all, are already on their journey, which introduces an absence of two years in Europe for professional study. On their return, rumor says, they take possession of a home, completely furnished by parental love and foresight. Happiness and prosperity attend them!

An Important Business Change.

The old and well-established Primm's Pharmacy, 14th and Washington Ave., has passed into the hands of Mr. W. A. Stuart, who has been connected with the establishment the past 11 years, as clerk, manager, and, finally, proprietor.

During this period of time, Mr. Stuart has, by close attention to business, and by the most scrupulous care in dispensing, justly earned for himself the enviable reputation of the profession that few young druggists attain in so short a time, in the present age of progressive pharmacy.

The business was founded by the late Hubert Primm, a former professor of pharmacy of the St. Louis College, about 20 years ago, and was conducted by him to the time of his death, during which interval he bore the reputation of one of the leading druggists of St. Louis, both as to scientific and practical pharmacy. Mr. Stuart's long connection with him has, no doubt, given him many advantages; he has justly earned his laurels and the respect of the profession by his ability.

Success is not to be questioned. We congratulate Mr. Stuart; he has our best wishes.

MEDICAL ITEMS.

The Italian Government is said to be about to establish in each port in the kingdom a medical committee, whose duty it will be to test the vision of all pilots.

Influenza, of which sporadic cases have occurred in various parts of Italy during the last few months, has lately assumed the character of a mild epidemic in Milan.

Peroxide of Hydrogen.—At the meeting of the Medical Society of London, on March 23, Dr. B. W. Richardson read a paper on The Administration and Use of Peroxide of Hydrogen. In the discussion which followed, Mr. Bryant said that he had found the drug—in watery solution of the strength of 10 or 5% by volume—a useful local application in scrofulous diseases and sinuses. Mr. Marmaduke Shield recommended it in fœtid otorrhœa, and Dr. Richardson suggested that it might be of use in intestinal antisepsis by typhoid fever.—*British Medical Journal.*

Pine Apple in Tape-Worm.—Dr. F. H. Lutterloh, of Anthony, N. M., writes us as follows (*Med. World:*) "In 1875, in the State of Vera Cruz, Mexico, I was called to see a Miss L., æt. 10, who had passed several segments of tape-worm about 6 inches in length, some of which I saw. I at once prescribed that she eat half of a large, ripe pine-apple. She forthwith did so, finding it a most agreeable medicine. In the course of twelve hours she had an evacuation, in which was about 6 feet of worm, including the head, and thus a final cure was effected, as I knew her intimately for nine years after, and no more tape-worm.—*Western Medical Reporter.*

Homonymous Hemiopic Hallucinations.—In the *Journal of Nervous and Mental Diseases*, No. 1, 1891, mention is made of a case of paranoia, or chronic delusional insanity, which had been observed by Dr. F. Peterson, in which the visual hallucinations always appeared in the right field. There was no hemianopsia. Dr. Peterson has been furnished with notes of a case in which hallucinations appeared in the dark fields of hemianopsia. A week after the latter had developed the patient began to see in the dark fields, cats and dogs, and children arranging themselves in rows and forming processions. After the fourth week the hallucinations suddenly and permanently disappeared; hemiopia persisted.—*British Medical Journal.*

Accidents on British Railways.—The latest returns of accidents on British Railways show a decrease.

For the nine months ending with September, 1890, only 6 passengers were killed, and 234 injured by accidents to trains, rolling stock, permanent way, etc., as against 82 killed and 786 injured in the same period of 1889. By accidents from other causes 69 passengers were killed and 630 injured, an increase of 7 killed and 48 injured; but the accidents to employes were more numerous than in the previous year, 357 being killed, an increase of 57, and 2,150 injured, an increase of 169. Besides these, 340 persons, including trespassers and suicides, were killed on railway tracks, and 163 injured, while 41 persons were killed, and no less than 4,778 injured by accidents on the premises of railways not caused by the movement of vehicles used exclusively on railways; that is, by wagons, trucks, etc. Altogether the number of deaths resulting from the operation of railways was 814, and the number of persons injured was 8,964 during the nine months. As the railway mileage of the United States is nearly eight times that of Great Britain, the record of causalties in this country does not make an unfavorable comparison with these figures.—*Railway Age.*

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, April 11, 1891, the President, L. Bremer, M.D., in the chair.

Aneurism of the Aorta.

Dr. Peckham.—The pathological specimen in this case is of more interest than the case history. The patient from whom it was taken was admitted to the Marine Hospital, Oct. 28, 1890, with the following history: He was 35 years of age, and a native of Louisiana. Has had a cough one year with dyspnœa on exertion. Both cough and dyspnœa has grown worse. Now he cannot make the slightest exertion without getting out of breath. He has poor appetite; has lost flesh and strength. He has no pain nor fever.

Physical examination showed a tumor beneath the upper end of the sternum. This tumor extended upward into the supra-sternal notch. It could be felt beneath the skin. It had eroded the manubrium sterni by pressure. The tumor was a pulsating one and gave an expansile thrill to the touch and a double bruit on auscultation. Posteriorly the tumor pressed on the trachea and this pressure was transmitted to the œsophagus, causing an inability to swallow anything but liquids. By pressure on the recurrent laryngeal nerve it caused a stertorous respiration and cough. During the last month of his life he could not talk except in a whisper. The tumor was the size of a medium sized orange. It was determined two months before death that pulsation in the tumor had ceased and there was left only a hard mass which gave more trouble with swallowing and respiration than the softer pulsating tumor did. In this case several factors might be alleged as having brought about the fatal termination. The pressure of the tumor on the superior cava prevented the return of the venous blood from the brain to the heart; the location of the tumor prevented the arterial blood from gaining access to the respiratory center in the medulla.

The treatment was liquid diet 0.6 of K. J. t. d., and fluid extract of veratrum viride beginning with three drops t. d., and gradually increasing to three drops every three hours. This gave a feeble pulse of 60 to 63 to the minute.

He died on Feb. 15, 1891. Post-mortem; there was found the tumor which is before you for examination. In this case I think the aneurism began in the innominata and gradually involved that part of the aorta lying between the inominata and the left carotid and subclavian. The cause of it is, no doubt, a weakening of the large vessels by atheroma, as there were marked atheromatous changes in the intima of the aorta. All the arteries arising from the arch are smaller than normal. Right side of heart dilated and hypertrophied. Valves efficient. Both pleural cavities obliterated by firm adhesions. Left lower lobe showed posteriorly hypostatic pneumonia. Upper left lobe was soft and friable. In this case there was a history of syphilis. In the cornea there was a well-marked aureus senilis.

In this case the aneurism was a result of atheromatous changes in the aorta. These changes probably were caused by syphilis. As the result of chronic inflammation there are produced in the intima of the arteries, more frequently in the aorta, small, slightly elevated patches of indurated tissue with a smooth surface. The elevation of the patches is due to a deposit of cells in the deeper layers of the intima and separating the thin fibrous layers. These patches undergo a fatty degeneration which begins in the deepest layers of the intima and there results the formation of a small abscess filled with part cholesteein and detritus or a calcareous deposit in the fatty mass. The abscess breaks into the blood current and its contents carried away, leaving behind an ulcer. The plates remain. This degenerated tissue is weaker than the normal tissue and the artery may be dilated by any increase of the blood pressure.

Dr. Alleyne said.—The diagnosis of aneurism in this case was more easy than usual on account of the pulsations of the tumor, condition of the veins, arteries, etc., but oftentimes there is much difficulty on account of the absence of other palpable symptoms, pain, etc. The speaker desired to know whether the doctor noticed a symptom, mentioned in the books, and designated a "tracheal tugging," in which pulsations are felt when the head of the patient while standing is elevated and extended to the utmost; and when pressure is made by the thumb and finger upon the cricoid cartilage, there is felt distinctly the impulse of the heart. It is said that in some cases of great obscurity, the diagnosis may be greatly facilitated by the presence or absence of this particular symptom. It is claimed that when present it

is indication of an aneurism, usually of the arch of the aorta, though it may be situated at the ascending portion of the arch, possibly at the descending portion, but frequently at the transverse portion.

This case, it was stated, had a history of syphilis; confirming the oft repeated observation, that in the majority of cases of aneurism, syphilis is an active cause in inducing degeneration of the walls of the vessels, which in consequence give way.

Dr. Bond expressed the hope that the President would enlighten us upon the pathological steps involved in these cases.

Dr. Bremer said he could not subscribe to the important role which atheromatous degeneration and calcareous deposits play in the formation of aneurism ascribed by the author of the paper.

He said, on a previous occasion, he had spoken of the pathology and development of aneurisms. It is now a well established fact, that almost all aneurisms are of syphilitic origin, and that the essential process, which precedes the formation of aneurism, is the sclerosis not of the intima but of the median coat of the vessels. In general, syphilis is a disease essentially characterized by the formation of connective tissue. It displaces and replaces muscular tissue—for instance, the smooth muscle fiber of the median coat—by connective tissue, causing that condition generally known as sclerosis. Syphilis is a connective tissue forming disease; instead of the elastic and contractile tissue of the median coat, there is formed a rigid coat; the tone of the vessel is lost, and in consequence of the impulses of the heart and the propulsion of the blood, pressure is exerted on the site of least resistance; and that is just at that point where the sclerosis of the middle coat has taken place. It may be said if this is simply a sclerosis, why does the aneurism simply burst? Because there comes in another law, the law of compensation. But atheroma has nothing to do with the formation of aneurism; it is not an essential factor, for we have very deep, intense atheromatous processes, and yet no aneurisms, as long as the median coat is intact. Again the calcareous deposit has nothing to do with it. In case of premature senility or actual senility, we often find conditions of the brain, for instance its vessels, which are as rigid as pipe stems, but they do not form aneurisms; nor would such conditions predispose to hæmorrhage, as it is erroneously believed and taught; on the contrary there is a calcareous change of the vessels, which, it is true, is, as a rule, combined with an atheromatous change of the intima; this calcareous change of the media and adventitia interferes with nutrition but does not predispose to hæmorrhage.

Dr. Peckham, replying to Dr. Alleyne in regard to the tugging at the trachea, said he had never observed that symptom.

Br. Mulhall presented pathological specimen of

Necrosis of One Segment of Semi-Lunar (Aortic) Valve.

The pathological specimen presented illustrates a cardiac condition, permitting aortic regurgitation; two segments of the semi-lunar valves are quite healthy, while the third has almost totally disappeared. The specimen also shows the absence of the two most ordinary changes of the aortic cartilage, namely, interstitial endocardial changes and atheromatous changes of the aorta. What process determined the selection of one segment of the semi-lunar valve, leaving the others intact, is worthy of inquiry. The history of this case is quite interesting, because the question during the life of the patient was, whether the other symptoms had anything to do with those of his heart? The cardiac condition was deemed only incidental. His symptoms were simply those of continued fever and dyspnœa, and usually a dry cough; the fever rising as high as 103, 102 or 101, sometimes absent for a day or two and again present. The diagnosis of malarial fever was first made, but to avoid the imputation of making this designation a cloak for ignorance, or doubt in the case of difficult diagnosis, every scientific means of making a diagnosis was invoked. Patients affected with hepatic abscess may have no other symptoms of fever, and in the presence of this clinical sign, viz., the tremendous difference between the upper line of hepatic dulness in decubitus and standing up (it was fully two and a half inches); and in view of the continued fever, and an absence of any condition of the body to account for it, the diagnosis of hepatic abscess was suggested. Dr. Dalton being called in, made exploratory demonstrations, aspirated in four or five different portions of the liver, but found no pus. The urine was examined for the presence of pus by the various tests, and in fact the various secretions of his body were accurately examined. We, therefore, held to the original diagnosis, that the case was one simply of chronic malaria, and that the aortic regurgitant lesion had little or nothing to do with the other symptom, which the post-mortem seems to justify. In the first place the regurgitant lesion simply involves one segment of the valve; in the second place there is no hypertrophy or dilatation of the left ventricle, and no distension of the mitral orifice. The mitral orifice admits simply the point of the finger. The entire organ was not very much enlarged. Again the post-mortem discloses no changes in the organ, incidental to regurgitation of mitral orifice. The liver and spleen were not very large; the mucous membrane of the stomach showed no symptoms of long continued congestion. The course of treatment commonly used in chronic malarial fever was employed, with all discrimination possible, yet without any benefit whatever. The persistence of the febrile condition for a period of five or six months naturally emaciated him very much, but his heart showed little or no signs of failure; there was no œdema or anasarca. He finally, some two weeks ago, went to Eureka Springs, thinking a change would do him good, and it did; but unfortunately, the day before his death, assuming to treat himself, consulting no physician there, he took a vapor bath, and he remarked that it was very cold, and he did not re-

act. Instead of now calling in a physician, he took a warm bath to produce external warmth; in a couple of hours afterward, he began to expectorate bloody serum, and in two hours afterward, died.

Dr. Hurt.—The cause of the fever here is certainly mysterious. In order to have fever there must be present in the system an excessive activity in the process of oxygination, or else there must be a tendency on the part of the system to retain heat. Heat is not normally eliminated, and the case reported suggests the question, what was the cause of the continued high temperature?

If malaria, how does it cause the excess of heat? In the poisoning of malaria, the temperature varies, oscillating between two extremes; sometimes there is not enough heat in the system, and then this condition is followed by an excess. But when the fever is continuous, there is usually present some inflammatory process, or else the process, by which the heat is eliminated from the system, is obstructed.

Dr. A. B. Shaw said the report of this case reminded him of one which, unfortunately, had commanded his head and hand for 19 weeks, the patient now being in the 20th week of continued fever. In this case also there is mitral regurgitation, which has been present for four or five years. The patient is a girl, æt. 18. The entire catalogue of therapeutic agencies has been exhausted in efforts to arrest the fever, but to no good purpose; and now the "expectant treatment" is adopted, re inforced—contrary to the teachings of many—by the administration of iron. Under this treatment his patient seemed little better.

Dr. Bremer said.—In regard to the cause of death of this patient, he did not believe he died from chronic mularia, but from the effects of the hot bath, superadded to the heart lesion. Nothing is more prejudicial to a person with heart disease than the hot bath, especially Turkish baths. Very many people are killed by this antiquated relic of barbarism; it is only adapted to the physical giant. A person on leaving a Turkish bath may feel different from what he did before, but in our neurasthenic age, this is a very dangerous institution—a public nuisance—and there is such a harmful superstition prevailing among the laity that the warm bath, and especially the Turkish bath, is so highly beneficial, that many people rush to these baths, and get weaker and weaker, and more miserable after each bath. The same fanaticism impels a man to go to a quack, who tortures and maltreats him; the patient believes he is getting better, until he dies. The speaker knew two patients who died from the effects of Turkish baths; and a number of neurasthenics, who are absolutely ruined by taking Turkish baths and hot baths, who have been in the hands of massageurs and colored gentlemen, who pound them. Such conditions as this, of eccentric hypertrophy of the heart, can not bear such treatment; it may be there is no fatty degeneration, but a condition like that will always involve more or less the automatic ganglia of the heart; the nerve tissue does not proliferate under any circumstances. This immense mass of muscular tissue is expected to contract rhythmically by the same amount of nerve tissue pressed by the heart of normal size; of course there must be inherent relative weakness, instead of increased strength, in consequence of the increase in the bulk of the muscular elements, but a corresponding increase in the nerve power is not behind it. Such persons, if they receive a blow, will faint, and if they receive a shock of any kind, either emotional or by the hot bath, they will faint. Many people who faint after taking a hot bath thereby take warning, and never go near it again.

Now in regard to the lesion; there has been a destructive lesion; but there is only one destroying lesion about the valves of the heart, and that is a malignant endocarditis. Hearts have been sometimes demonstrated here in which the patients died from malignant endocarditis. Dr. Dalton last year presented one in which one valve was destroyed and the other two were intact. We cannot determine why one valve only and not the others is destroyed; but sometimes just one valve is attacked, or one valve and a half, and destroyed, and the person lives under the defect. The speaker said there are two organisms, which, according to his experience, are answerable for this state of affairs; the one is the staphylococcus albus, or more frequently the staphylococcus aureus, and the other the pneumococcus. Such lesions are sometimes found in pneumonia; the case presented by Dr. Dalton was one in which a malignant endocarditis had supervened on a pneumonia or co-existed with pneumonia. This pneumococcus or staphylococcus has the power of destroying the valve; that is to say, of producing a coagulation necrosis by the poison which they secrete—the neighboring tissues coagulate and necrosis takes place, and that means the destruction of the valve. Some such process had taken place here, only not with the usual result, of death; but the patient got well; in all probability the micro-organism, whatever it may have been, probably the less harmful of the two, the pneumococcus, disappeared, was killed or re-absorbed in the blood stream. The speaker had previously demonstrated a heart, affected with malignant endocarditis; and the question was raised why, just at the mitral orifice, these organisms are deposited and proliferate? It is simply for this reason: The staphylococcus is an oxygen devouring agent; it cannot exist without oxygen. The greatest amount of oxygen is right there, just at the aortic orifice. It may be said there is also a great amount of oxygen at the mitral valve. This is only a theory; we cannot explain why it is not at the mitral valve, in preference to the aortic valve, that these organisms will be deposited and find the conditions of life, proliferation and development. The speaker, therefore, thought this was primarily an infectious disease; the micro organisms, which were deposited accidentally on one valve, produced a coagulation necrosis and consequently a disintegration of the valve. Then came the eccentric hypertrophy as a measure of compensation, and hyper-

trophy of the heart means, not an increase of force, but in reality a weakness of the heart; because there is not the same enervation which there ought to be to supply the increased demand. The compensation on the part of the nerve elements does not take place in the same ratio; the hot bath doubtless killed the man.

Dr. Gregory, referring to the automatic ganglia of the heart, and the disproportion between the forces of those ganglia and the forces of the ventricle, said he understood that the automatic ganglia is a part of the apparatus of the heart—a very important nerve center, and admitted that the increased size of the ventricle resulted from increased functional activity; that there was a corresponding increase of nutrition, and that increased nutrition corresponds to its functional activity; but he could not understand how this increased functional activity of the ventricle should occur, without an increased functional activity of the ganglia, as well as of the ventricle; and there being an increased functional activity of the apparatus of the heart, why does there not a corresponding increment in all the forces ministering to the heart necessarily result? So that if the ventricle was increased in its force, there must be a corresponding increase in the force of the automatic ganglion. The first agency or influence to increased nutrition which ends in the production of an increased ventricle may take place in the automatic ganglia; and with the increased functional activity there is an increased nutritive activity; so they must necessarily co-ordinate, one with the other.

Dr. Bremer responded.—To this objection of my friend and teacher,of the automatic ganglia of the heart be ing the chief ganglion, that is Remak's, a mass of cells, is situated at the termination of the vena cava. If that portion in the frog—in an excised frog's heart be intact, the heart will continue to beat rhythmically; whereas, if it is destroyed there is no rhythmical action. The inherent potentiality of the automatic or self regulating ganglia of the heart is a very difficult matter to understand; it is also difficult to comprehend why an anatomical increment results from increased functional demands, though we see it every day as a fact. To obtain a clear understanding of this matter in an hypertrophied heart, we must take into consideration the anatomical changes that take place. What does such an excentric, hypertrophied heart abnormally contain, so far as the anatomical constitutents are concerned? It is not muscle fibres, for muscle fiberes themselves are, with extreme rarity, increased; but there is an increase of connective tissue, and an increase, of any histological elements anywhere, does not presuppose nerve action. Far from that. Look for instance at the inflammatory process. Is there any nerve action? The leucocytes are in no way connected with the body; but they insti gate the production of an immense number of fibre blasts, and there results an immense proliferation. There is sometimes this exuberation process, but this is entirely independent of the action of the nerves. Any histological element of the body, whenever it becomes irritated, by tension, mechanical or chemical, will have a tendency to proliferate; cells will divide; and there is an apparent hypertrophy. But we must distinguish between an actual hypertrophy and an adventitious formation of connective tissue. Such hearts as this sometimes show the greatest degenerative changes; and if there was a constant harmony between the muscle tissue and the nerve tissue, there never would take place what really is the usual result—fatty degeneration. The speaker had seen bullocks' hearts, which at first sight appeared to be all muscle; and we should thence in infer that the contraction of such a heart would be very powerful; but upon making a microscopical examination, it was very frequently ascertained, that there was not a hypertrophy of the muscle fibres, but on the contrary, an atrophy; and the whole organ consisting more or less of connective tissue. Connective tissue is that tissue which, most of all, is likely to proliferate. Where there is atrophy of tissue, nerve or muscle, impaired connective tissue will step in, and overpower the muscular tissue by its immense increase; and such has been the case here.

Dr. Gregory rejoined.—Hypertrophy, in the way we are now contemplating it, is a perfectly normal process under ordinary circumstances. An increase of functional activity was impressed on this heart to meet a single emergency, the result of a morbid process; the morbid process is not in the muscular substance of the heart itself, but in its valves; there is some deficiency; some narrowing; some mechanical condition, that embarrassed the circulation of the blood through the heart; the necessity for abnormal energy was impressed upon the muscular structure of the heart, and necessarily increased the nutrition; and, nutrition being increased, there is a corresponding increase in its bulk and functional capabilities; it is a perfectly normal process. I cannot therefore understand how a perfectly normal process of that kind could be disassociated from a corresponding normal change in the forces themselves, that minister to the heart. So when we have a normal hypertrophy to meet a certain emergency or strait in the circulation, there is a corresponding nutritive activity in all the components. I agree with my friend that the morbid process to which he refers, may take place directly as a result of vegetative forces in the tissues themselves. I can understand that simply the vegetative forces of the parts, in which an irritant exists, will necessarily cause an increased vegetation of the heart, as the result of this irritation. This is an abnormal condition; but when one of our muscles or a group of muscles is increased, in consequence of the imposition of certain additional labor on those muscles,it is a perfectly normal process; as much so as that change, which takes place in the arm of the laborer or blacksmith. I cannot disassociate the nerve apparatus, ministering to this muscular apparatus, from the musclar apparatus itself; I must believe that they co-ordinate in this nutritive activity; and the agency that brings this about influences alike the organ, which is the seat of the hyper-

trophy, as well as all the apparatus ministering to that part.

The Number and Appearance of Tubercle Bacilli in the Sputum after Tuberculine Injections.

Dr. Bremer.—I have brought with me to-night a specimen of tuberculous sputum for the inspection of the Society. The specimen has been prepared after Ziche's method, with carbolo-fuchsine. The sputum was handed me for examination by Dr. Mulhall. It is obtained from a patient who is undergoing the Koch treatment.

Among the first published reports on the Koch method was one of Fraentzel, of Berlin, who claimed that the form of the tubercle bacillus was materially changed by the tuberculine when introduced into the circulation. He asserted that after injection the bacilli lost much of the staining facilities, that they became smaller and more slender, assumed the biscuit shape or that the rods were composed of a number of coccus-like formations.

If the sputum which I submit to your examination is an example of what Fraentzel saw and described, I must say that I have seen, time and again, like others, the same in the many sputum examinations which I have made since the day that Ehrlich's method was first published.

Some time ago I received, from a friend, one of the slides which were advertised and for sale in Berlin, showing the bacilli as they appear after tuberculine injections. The forms that I saw there were old acquaintances.

In the specimen which I have to-night placed under the microscope, some of the microbes show the forms which have been described as characteristic of tuberculine action.

They are present in immense numbers, so that the droplet of sputum which was subjected to the staining process may justly be said to have been a pure culture of tubercle bacilli, exhibiting various stages of a retrogressive metamorphosis.

To my mind the explanation of this often observed fact is the following, viz.:

Nearly all observers argue that cough and expectoration increase after tuberculine injections. With increased cough, little round, whitish, more or less globular bodies, which are often formed in cancers, and which consist of almost pure cultures of the parasite, are expelled and are made accessible to microscopical examination. Iodide of potassium, which has of late been proposed instead of tuberculine by an investigator, for diagnostic purposes, will probably have the same effect.

Specimens like the one which I have prepared for your examination, I have often seen in anti-tuberculine days.

SOCIETY NEWS.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

National Associations.

American Academy of Medicine, Washington, May 2 and 4.

American Medical Association, Washington, May 5, 6, 7 and 8.

National Association of Railway Surgeons, Buffalo, N. Y., April 30 and May 3.

Medical and Chirurgical Faculty of Maryland, Baltimore, April 28, 29 and 30.

Texas State Medical Association, Waco, April 28, 29 and 30, and May 1.

State Medical Society of Arkansas, Hot Springs, April 29 and 30, and May 1.

Medical Society of the State of Washington, Seattle, May 6, 7 and 8.

Missouri State Medical Association, Excelsior Springs, May 19, 20 and 21.

Indiana State Medical Society, Indianapolis, May 13, 14 and 15.

Kansas Medical Society, Wichita, May 13, 14, 15 and 16.

Illinois State Medical Society, Springfield, May 19, 20 and 21.

West Virginia State Medical Society, Fairmount, May 20, 21 and 22.

North Carolina State Medical Society, Asheville, May 26, 27 and 28.

Connecticut Medical Society, Hartford, May 27, 28 and 29.

AMERICAN PHARMACEUTICAL ASSOCIATION.

The meeting of the American Pharmaceutical Association, in New Orleans, will be held in Washington Artillery Hall, where also room has been secured for the exhibition of articles of pharmaceutical interest. The headquarters of the Association will be at the St. Charles Hotel, where ample accommodations will be provided for the visiting members, at the reduced rate of $3 per day. The Illinois Central Railroad has granted to the members going over their road from either Chicago or St. Louis, tickets for the round trip at a single fare. An analogous liberal concession has been made from Cincinnati by the Queen and Crescent line. For other sections of the country, from which reduced fares could be obtained, the usual convention rates have been allowed, being one fare going, at the same time obtaining from the ticket agent a convention certificate; the latter must be signed in New Orleans by a member of the committee, designated for the purpose, and a return ticket over the same route may then be purchased at one-third regular fare. For members from the Eastern and Central Atlantic States, desiring

to travel in a body, it has been proposed to leave Washington on Thursday, April 23, at 11:10 P.M., by way of the Chesapeake and Ohio Railroad, arriving there Friday evening; and then to take the Queen and Crescent line, stopping on the following morning for a few hours with the view of visiting Lookout Mountain, and reaching New Orleans Sunday morning at 8 o'clock.

The meeting promises to be a large and profitable one; we have learned from several sections in the South that it will be well attended from that part of the country; and while the various states from which members are usually present at the meetings will be well represented, we have also information of projected participation in the proceedings from localities from which heretofore delegates and members could not be present. —*Am. Jour. Phar.*

MISSOURI MEDICAL AOSSOCIATION.

The Missouri Medical Association will convene at Excelsior Springs, on May 19, 20 and 21, instead of May 12, as heretofore announced.

The programme of proceedings has just reached us and affords promise of abundant and highly interesting medical and surgical material for consideration. A very large attendance is anticipated.

CENTRAL ILLINOIS DISTRICT MEDICAL SOCIETY.

The seventeenth annual meeting of this enterprising Society will be held at Pana, Ill., April 28, 1891, W. P. Buck, M.D., Moawequa, President, J. H. Miller, Oconee, Secretary. An interesting programme on subjects chiefly surgical is prepared and promises to be profitable. A full attendance is desired. Personal experience enables us to promise a cordial greeting to all, and, unquestionably, a pleasant and profitable season.

HEALTH RESORTS, MINERAL WATERS, ETC.

HOTEL EASTMAN, HOT SPRINGS, ARK.

Among the many first-class hotels at this world renowned watering place, the Park, Arlington, and others, Hotel Eastman (last erected) is doubtless the best, in respect to completeness and perfection of finish, in all its appointments. It contains more than five hundred rooms for its guests, each being furnished with independent closets, steam radiators, etc. All the hallways and rooms are abundantly lighted by day, with due ventilation, and at night by incandescent lights, and the grounds by arc lights. The hotel is constructed of brick, iron and wood; the kitchen is absolutely fireproof. The bath-house is a marvel of its kind, into the construction of which only brick, marble and brass enter. Reynall's orchestra of ten pieces, one of the finest bands in the United States, will give day and evening concerts. All inquiries will be promptly and courteously answered by Oscar G. Baron, manager.

SELECTIONS.

THE DURATION OF DISEASED CONDITIONS.

BY EDWIN R. MAXSON, M.D., A.M., LL.D., SYRACUSE, N. Y.

Read before the Syracuse Medical Society, February 17, 1891.

Disease is a deviation from health, and when relating to mankind it means a deviation of the human system from the standard of health. The degree and nature of the deviation constitute the character of the disease, to which the various names have been applied and by which the diseased conditions are generally known.

Diseases may be general or local, contagious or noncontagious, septic or aseptic, depending upon the causes that produce them. And it has been supposed that some diseased conditions are self-limiting in duration, and especially some of the contagious diseases, such as rubeola, scarlatina, diphtheria, enteric or typhoid, etc.

And, while there may be a tendency in all deviations from the standard of health to run a correrponding course, and continue something near the same time, the cause being the same, it is probable that by far too much has been attributed to this supposed necessary limited duration of all septic and contagious diseases, if no other. For, while a given cause acting upon several persons would be likely, unchecked, to occupy something near a corresponding time, taking into account accidents and difference of constitution, if by any means the septic or contagious influence operating can be neutralized and its poisonous effects suspended, then the struggling system may rally at any shorter period of time and resume a healthy condition. And hence nothing strange has happened, for disease has no entity. The cause and constitution are the only factors.

A common cold is a condition arising from the closing, by the astringency of cold, of the eight millions of exhalants on the surface of the body, retaining an effete matter which contaminates the blood, and, if not relieved the Schneiderian and bronchial, and in some cases the intestinal mucous membranes, may become congested if not inflamed. Animal heat accumulates

in consequence of the suppression of cutaneous exhalation, and after the cold stage fever may result, attended with bronchitis, if no other complication attends. Often two or three weeks may be required for the system to become restored to a healthy condition, especially if unaided by remedial measures. But if in the incipency of this diseased condition the feet be placed for a reasonable time in warm water, warm drinks being given, and thus the cutaneous exhalants relaxed, instead of two or three weeks, in as many days health is recovered.

Nothing strange has happened. It is only necessary to restore a checked function in this case to shorten the diseased condition; and thus it is that non-contagious, aseptic diseased conditions may generally, by proper early treatment, be materially shortened. How is it about the septic and contagious? Let us see.

Influenza (la grippe) is a septic if not a contagious disease.

The poison which causes this diseased condition having originated, perhaps, in the overflowed regions of China, intensified possibly by exhalations from the marshes and hovels of squalid poverty in Russia, is evidently one of no ordinary malignancy.

Unchecked, this diseased condition may continue as long as an ordinary neglected cold—two or three weeks perhaps—with far more severity and leading to more serious consequences.

But, if in addition to warm drinks, hot foot-baths, mild laxatives and, for adults, two grains sulphate of cinchonidine every six hours, as much sulphocarbolate of sodium, or an equivalent of other suitable antiseptic, are given, alternating with the tonic, instead of two or three weeks, in as many days convalescence is established.

Rubeola and scarlatina are diseased conditions caused by poisons introduced into the system, more generally from others, but perhaps not always, as there must have been a first case of all contagious diseases.

In these diseased conditions, the poisons once introduced depress at first; then with febrile action they appear to spend their influence on the cutaneous and mucous membranes with considerable regularity if not interrupted by any treatment.

The duration of the depression, reaction and convalescence may generally occupy perhaps ten days, as an average, accidental complications varying the time more or less.

If now, in the incipiency of these diseased conditions, in addition to whatever else may be indicated and before the poisons have had time to do their worst in deranging the various functions, an antiseptic be introduced, harmless to the patient but which neutralizes the poisons, is it not reasonable to suppose that the disease will be lighter and of shorter duration? Certainly it is, and complications are less liable to occur.

The disease is only a condition of the system caused by the poisons. Destroy the poison early and, if the disease is not aborted, the normal healthy condition is sooner restored. The stages are shorter and less marked and the average duration is, perhaps, less than half that of cases in which the poison has to be finally eliminated by the system, as has been generally supposed.

Diphtheria is a contagious disease. The poison introduced into the system, whether derived from persons or from other souces, may run on, if left to do so, eight or ten days before being eliminated and convalescence established.

Then the blood has to be improved by good nourishment and sustaining treatment for some time yet, as was formerly supposed. The duration, then, including convalesence from the diseased condition, might be two or three weeks. Of the real diseased condition, perhaps the average might be ten days, when no paralysis or other alarming complications occur.

But, as the disease is only an effect of the poison on the system, suppose, at an early stage, before the poison has done its worst, that, in addition to tonics—such as as sulphate of cinchonidine, tincture of chloride of iron, and whatever else may be indicated, including gargles, warm foot-baths, stimulants, etc.—an antiseptic be given (the sulphocarbolate of sodium or other, harmless to the patient, but which will neutralize the poison), is it not reasonable to suppose that the disease will be lighter and of shorter duration? As the system has less to eliminate, should not a healthy condition be restored in less than half the time required when no antiseptic is given? Most certainly this is the common-sense view, and amply borne out by facts in cases too numerous to mention here. (See Typhoid or Enteric Fever, with reprint, from the *N. Y. Med. Jour.*, of August 15, 1885, etc.) The same may doubtless prove true in most septic and contagious febrile affections. It is only necessary, in addition to whatever else may be indicated, to know and properly apply, locally and internally, the antiseptics capable of neutralizing the poisons that produce the diseased conditions to cure, antipyretics being rarely required.

The cause being ascertained, and proper antiseptics selected and applied, the patient, not the disease, should be treated, as Hippocrates directed, no time being wasted in arriving at a name for the disease.

Typhoid or enteric fever is the last diseased condition to which I shall refer on this occasion. And there is, perhaps, scarcely a disease in which the poison, when no serious complications occurs, appears to require so definite a period to eliminate. The average duration or time may be about three werks.

But, as the poison spends its influence largely on the intestinal glands and mucous membrane,sometimes passing on to ulceration, a much longer time may be required before a healthy normal condition can be restored. And especially may this be the case if it is, as is held, that the disease cannot "be cut short in an hour," and, hence, can only be conducted through a regular course of about three weeks, as was taught. But suppose we give from two to four grains to adults, less to children, of the sulphocarbolate of sodium or its equivalent of some other suitable antiseptic, commencing

early, alternating with two grains of sulphate of cinchonidine and ten drops of the tincture of chloride of iron, as may be indicated, and that the early intestinal irritation be kept down by warm sinapisms twice a day, all the drinks being toast-water and milk to nourish and warm, to favor cutaneous exhalations, is it not reasonable to suppose that, if the disease is not aborted, the system will be restored to its normal healthy condition in less than half the time required when left to run on, because, as has been alleged, "it can't be cut short in an hour"? Certainly. And it may be questionable whether we have the right, in the present light of med, cal science, to look on, maintaining that any diseased condition has necessarily a definite or regular time to run. It is a fossil of the past, it appears, and injurious in its consequences on all accounts.

Among the antiseptics for internal use, the sulphocarbolate of sodium, in from two-grain to four-grain doses, dissolved in a teaspoonful of water, every six hours, for adults, may be found very convenient and satisfactory in the diseased conditions named and many others, alternating with such tonics as may be indicated if any, and proportional doses for children. Listerine, in teaspoonful-doses for adults, in many septic diseased conditions is efficient, safe and convenient; for children the dose may be proportioned to the age. Other antiseptics may be used internally, however, preference being given to such as are harmless to the patient in all cases.

Locally, listerine, eucalyptol, carbolized raw linseed-oil, bichloride of mercury, etc., properly diluted, may be the best antiseptics.

With all these and many other excellent antiseptics to abort, cut short, and render milder the various contagious and septic diseased conditions, let us not say that "it can't be done," with the fossil idea that any diseased condition has necessarily a definite time to run; for, with all that is here stated or has been gained by antiseptics, we have great reason to be humbled for not having accomplished more. Let us try for it.

Concluding Remarks.

It may be proper to add in conclusion, that what I published in the *N. Y. Med. Jour.*, and reprint, of August 15, 1885, on the abortive treatment of enteric or typhoid and other fevers, including the exanthematous, has been fully confirmed in my practice since that time.

And it is from my experience before and since that time in the treatment of the diseased conditions named and others, that I have entirely abandoned the fossil idea that any disease has necessarily a definite time to run; for of all the diseases I have named and others requiring antiseptics, their duration has been cut short at least one half by the addition of antiseptics to the other treatment indicated, as nearly as I can determine. And not only cut short, but rendered of vastly less severity, with fewer fatal results.

This idea of antiseptic medical treatment to abort, cut short and render milder septic and contagious diseased conditions had its origin with me while with Prof. Lister in the Royal Infirmary, of Glasgow, in 1867. And I have been gratified to know that many leading men abroad, and some in this country, are following along in the same line with similar results. But it should be borne in mind that, to obtain the fullest benefit in antiseptic medical treatment, it must be commenced with early, no time being squandered in arriving at a name for the disease, the cause and condition of the patient furnishing the indications.

And, further, to secure the best results in these various diseased conditions, the patient should be encouraged, and, as far as consistent, dressed and kept out of bed days, thus securing better sleep nights; antiseptics, together with such other treatment as may be indicated in the incipiency, being commenced with early, including an improved cathartic pill at evening; and the drinks absolutely restricted to toast water, half milk, with toast, egg and such other food as may be borne, should be allowed. And in cases in which, from early neglect or other cause, the disease may fail to be cut short, the antiseptic should be continued to moderate the malignancy, with such other treatment as may be indicated to the last.—*N. Y. Med Jour.*

818 Madison Street.

THE TRUE POSITION OF ELECTRICITY AS A THERAPEUTIC AGENT IN MEDICINE.

The *Boston Med. and Surg. Jour.* contains Dr. Morton Prince's views upon this subject. Electricity is a most valuable aid to the diagnosis of certain forms of disease. To test electrical reactions requires great care and no little technical skill. Proper apparatus is indispensable. As a palliative for neuralgia, nothing can be more valuable than electricity, particularly galvanism. This is also true of acute and subacute neuritis. The atrophy and paralysis following anterior polio-myelitis, in joint lesions and disuse, in hemiplegia following cerebral hæmorrhage, in diptheritic and pressure paralyses, in hysteria, muscular rheumatism, articular rheumatism, painful neuroses, it is palliative and sometimes curative.

In neurasthenia it acts as a tonic, relieves nervousness and dispels insomnia, but is in no sense a cure. Conditions following grippe yield to it in a remarkable manner; and in psychoses and neuroses, symptoms disappear like magic, the insomnia often disappearing at once. Electricity is not of the slightest use in curing such diseases as locomotor ataxia, disseminated sclerosis, progressive muscular atrophy of the spinal type, myelitis or general paralysis. Whoever hopes to cure epilepsy and migraine by electricity is doomed to disappointment. Faradism probably works, first, by reflex action through the sensory nerves, inhibiting the pathological process in the nerve centers, upon which the local process probably depends; and, secondly, by direct stimula-

tion of nerves and muscles. It is by reflex action, probably, that pain is inhibited. Galvanism probably acts in the same way, and possibly produces local chemical and physical changes which aid in its therapeutic effects. It is claimed for galvanism that it is electrolytic. In many cases the relief obtained from the electric current is largely through suggestion, especially in psychoses and neuroses and in those affections where pain plays an important part.

CALDWELL (W. C.) ON THE ACTIONS OF THE SIMPLE BITTERS.

The use of bitters as remedial agents is based upon the four following actions:

1. They increase secretion.
2. They increase peristalsis.

They diminish fermentation; and do this not only by their antiseptic action, but, very likely, partly on account of the increased digestion, so that there is not left so much material to ferment, and also by hastening on the material into the duodenum that it does not have time to remain in the stomach and ferment.

4. They increase absorption.

From the above actions you can readily deduce the conclusion that wherever there is diminished secretion, wherever there is diminished peristalsis, wherever there is undue fermentation, wherever there is sluggish absorption, that these drugs may be indicated and may be of service.

Hence, in atonic dyspepsia, where the mucous membrane is pale and inactive, bitters are of great service by increasing secretion and peristalsis. The same is true of the sluggish digestion that occurs in convalescence from acute disease; especially is this true of the emaciated typhoid patient. It is also of use in chronic gastric catarrh. It is not only of use to increase the action of the stomach, but in diarrhœa due to relaxation of the mucous membrane, by increasing the tonicity of the various structures of the membrane, the diarrhœa is often improved. It is also of service where there is habitual accumulation of flatus, because it increases peristalsis, and removes the accumulated material and arrests fermentation, so that it will not be formed.—*N. Am. Pract.*

SOME MILK STATISTICS

The *American Analyst* says that there are $2,000,500,000 invested in the dairy business in this country. That amount is almost double the money invested in banking and commercial industries. It is estimated that it requires 15,000,000 cows to supply the demand for milk and its products in the United States. To feed these cows 60,000,000 acres of land are under cultivation. The agricultural and daily machinery and implements are worth $200,000,000. The men employed in the business number 750,000, and the horses over 1,000,000. There are over 12,000,000 horses all told. The cows and horses consume annually 30,000,000 tons of hay and nearly 90,000,000 bushels of cornmeal, about the same amount of oatmeal, 275,000,000 bushels of oats, 2,000,000 bushels of bran, and 30,000,000 bushels of corn, to say nothing of the brewery grains, sprouts, and other questionable feeds of various kinds that are used to a great extent. It costs $450,000,000 to feed these cows and horses. The average price paid to the labor necessary in the dairy business is probably $20 per month, amounting to $180,000,000 a year. The average cow yields about 450 gallons of milk a year, which gives a total product of 6,750,000,000. Twelve cents a gallon is a fair price to estimate the value of the milk, at a total return to the dairy farmers of $810,000,000, if they sold all their milk as milk. But 50% of the milk is made into cheese and butter. It takes 27 pounds of milk to make 1 pound of butter, and about 10 pounds to make 1 pound of chesse. There is the same amount of nutritive albuminoids in 8½ pounds of milk that there is in 1pound of beef. A fat steer furnishes 50% of boneless beef, but it would require 24,000,000 steers, weighing 1,500 pounds each, to produce the same amount of nutrition as the annual milk product does.—*Dietetic Gazette.*

Mortality of States and Counties.—California in January, in 85 cities and towns, having a population of 722,000; total deaths, 1,150, of which 167 were from phthisis pul., diptheria, 61, croup, 26.

Connecticut in February, in 166 towns and cities, population, 743,731; total deaths, 948, of which 124 were from phthisis pul., diphtheria and croup, 38.

Florida, Jacksonville, in February, population 25,000; total deaths, 43, of which 7 were from phthisis pul.

Iowa, in January, the larger cities numbering 187,000; total deaths, 248.

Michigan, Detroit, population, 205,669; total deaths, 262, of which phthisis pul., 26.

Minnesota, Minneapolis, in February, population, 164,738; total deaths, 179, of which phthisis pul., 25.

New Jersey, Hudson County, in January, population, 292,734; total deaths, 620, of which phthisis, 74.

New York, Buffalo, in February, population, 255,000; total deaths, 443, of which phthisis pul., 43.

Pennsylvania, Philadelphia, in week ending March 4, population, 1,046,964; total deaths, 469; phthisis pul., 58.

Rhode Island, in February, population, 314,212; total deaths, 420; from phthisis pul., 57.

Washington, Seattle, in February, population, 48,000; total deaths, 53; phthisis pul., 7.

Foreign.

Cuba, four weeks ending February 15, total deaths, 113; from phthisis pul., 16.

Egypt, cities in upper and lower Egypt, total deaths, 753; from phthisis pul., 50.

England and Wales, in week ending March 7, population, 10,010,426 in 28 largest cities and towns, gives annual rate of mortality 23.7 to 1,000; lowest rate being in Brighton, 16.6, highest in Halifax, 33.9.

London, deaths from respiratory organs, 677; annual death rate, 20.4 to 1,000.

Ireland, for week ending March 7, 23.7 in 16 cities.

Scotland for week ending March 8, population, 1,345,-563; rate 24.1; being highest in Paisley, 37.1; lowest in Perth, 12.3.

Russia, deaths for year 1890, 30,393, of which 3,560 were from phthisis pul.—*Compiled.*

Treatment of Articular Rheumatism by Mercury. Calalb, of Bucharest, employs the following method in the treatment of acute articular rheumatism: He applies ointment of mercury around the inflamed joint, and surrounds this with gutta-percha, which is kept in place by bandages of tarlatan. This dressing is left undisturbed for four days, and at the end of that time he asserts that the pain completely disappears, or, at least, is very much ameliorated. The application may then be renewed. Care should, of course, be taken that too much mercury ointment is not used, owing to the danger of ptyalism. In eight cases in which the author has resorted to this method he had the most excellent results, and he states that the patients bear the mercury exceedingly well. It is advisable to let them have a gargle of chlorate of potassium and myrrh to prevent any tenderness of the gums.—*Revue Internationale de Bibliographic Medicale.*

A Method for Removing Tattoo Marks.—Variot (*Jour. de Med. et de Chirurg. Prat.*, January 10, 1891) details the procedure which he adopts for the removal of these disfigurements. The skin to be decolorized is first washed with a concentrated solution of tannic acid, and is then closely punctured with a set of needles, such as tattooers use. A crayon of nitrate of silver is next thoroughly rubbed over the area, and after a moment the skin is dried off, when it will be found that the punctures are deeply blackened by the formation of the tannate of silver in the superficial layers of the skin. The cauterization is said to result in an inflammatory reaction for a couple of days, and subsequently in the formation of a crust or thin eschar, which separates spontaneously in from fourteen to eighteen days, leaving beneath it a superficial red cicatrix, which gradually loses its color, and at the end of a few months, M. Variot states, is scarcely perceptible. He does not consider it expedient to attack at one sitting an area larger than a five franc, lest the inflammation provoked should be too severe, and interfere with the pursuance of the daily duties of the individual. The only dressings which he employs after the little operation consists in keeping the part powdered with tannin.

PUBLISHERS' NOTICES.

Medical Books.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather binding. Published by Birmingham & Co. 1882. List price, $5.00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

J. H. Chambers & Co.,
914 Locust Street, St. Louis, Mo.

On to Washington.—The Louisville Delegation headed by the soldierly bearing of Dr. Dudley S. Reynolds, will leave Cincinnati on the morning of May 2, for Washington, and travel Eastward over the Baltimore & Ohio R. R. Some members, if not all of the St. Louis Delegation, will join the Louisville party at Cincinnati.

J. P. Lippincott Company will, beginning with April, issue quarterly thereafter a work entitled the "International Clinics." This work will comprise the best and most practical clinical lectures on medicine, surgery, gynæcology, pediatrics, dermatology, laryngology, ophthalmology, and otology delivered in the leading medical colleges of thia country, Great Britain and Canada, Those lectures have been reported by competent medical stenographers, and thoroughly revised by ths professors and lecturers themselves. The object of the work is to furnish the busy practitiondr and medical student with the best and most practical clinical instruction, in concise form. Each volume will consist of over 350 octavo pages, illustrated with photographic productions of important cases.

Big Four and Chesapeake & Ohio R. R.—For the accommodation of the party attending the Convention at Washington, the Big Four and Chesapeake & Ohio Routes will run a special through Sleeping car from St. Louis to Washington, leaving St. Louis at 7:15 p. m. Saturday, May 2.

This car will leave Cincinnati on the Washington Express at 7:35 a. m. and pass through the Blue Grass region of Kentucky, the new River Canons and a portion of the Blue Ridge Mountains by daylight, reaching White Sulphur Springs at 8:43 p. m., and Washington at 6:30 a. m.

Arrangements are being perfected for a trip down the Potomac River and Chesapeake Bay to Old Point Comfort and Fortress Monroe, and it is thought that a stop over will be granted on the return trip at White Sulphur Springs, Natural Bridge or some other of the many points of interest along the line of the Chesapeake & Ohio Route.

ORIGINAL COMMUNICATIONS.

"JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION."

BY V. C. VAUGHAN, ANN ARBOR, MICH.

I fail to see any valid reason for changing the place of publication of the *Journal of the American Medical Association.* The only arguments which I have seen advanced in favor of Washington are the following:

1. The fact that the great medical library at Washington might be of service.
2. The work done in the scientific department of the government might be utilized; and
3. Washington is the center of political influence.

Of these, the first is the only one which seems to me to have any weight. An an American physician, I am very proud of the great library which has been built up under the care of Dr. Billings. However, the literature which is of service in the editorial work of a medical journal is to be found in the current numbers of home and foreign publications, and these can be had in Chicago as readily as in Washington. I dare say that there are many more physicians in Chicago to-day who are actual subscribers to, and readers of, the great medical journals of England, France and Germany than there are in Washington. In writing a book, one needs to go back and exhaust the literature of the subject; but in editing a journal, he should be able to give his readers the latest, as well as the best, information. We often see in leading articles both in American and English medical journals, what pretends to be an exhaustive resume of a subject, but which omits all work done on that subject within the preceding six months or year, and often for even a longer time.

As to the medical work done by the scientific bureaus at Washington, but little can be said. There has been, as is well known, for some years a controversy about the work done on the so called hog-cholera germ by the bureau of animal industry, between the scientific men of that organization and a western investigator. Notwithstanding the fact that the Washington men were supported by a commissioner appointed to inquire into the merits of the controversy, recent studies made with the germ in Koch's laboratory completely vindicate the western investigator, and condemn the Washington bacteriologists. The same bureau has done some good work in the direction of adulteration in foods, but since the abolition of the National Board of Health the general government has done nothing, worthy of mention, in investigating the causation or restriction of disease. Certainly, the scientific work of medical importance carried on at Washington is not sufficient to demand a weekly journal to make known its great discoveries to the profession of the country.

So far as the third argument is concerned, American politics must undergo a radical transformation before it can be of any service to scientific medicine. The fact that Washington is the center of political influence is one reason why the journal should not be located there.

The journal is largely supported by the physicians of the Mississippi Valley, and there is no good reason for its removal to the East. The so-called "West" has no cause to be ashamed of its medical men and their work, and while sectional strife in scientific matters is wholly out of place, I do not think that the majority of the members of the Association will admit by their vote on the question that a successful journal cannot be maintained west of the Alleghanies.

I am very much opposed to the publication of a volume of transactions. The most valuable part of a medical journal is often to be found in the abstracts, editorials and news items. We should strive to improve our journal and make it one of which all might be proud. I am aware of the fact that the *Journal* has contained some editorials, which could have been written only by one wholly ignorant of the subject discussed, but similar editorials have appeared in journals published east of Chicago. If the salary offered is not sufficient (and no one will claim that it is) to secure the best editorial talent, let it be increased. It should be not less than $6,000, and the editor should devote his entire time to the work, and not make it a side issue, at which he labors at odd moments, which he finds in the course of a busy practice.

TOO MUCH SURGERY.

A PROTEST AGAINST THE RECKLESS USE OF THE KNIFE.

BY M. YARNALL, M.D., ST. LOUIS, MO.

A hecatomb of women survive to tell the story of innumerable operations that have been performed on their wombs. They are heroines; Scalpel's modification of Bisturie's operation has saved their lives; one week longer and they would have perished, but now they are useful members of society, all from the phenomenal skill of Dr. Volsella, the great gynæcologist, "God save the mark." Not one in a hundred, of the operations performed on the uterus and its appendices, is necessary. They are devised and perpetrated on willing victims, causing not a few deaths, invalidating many and seldom doing good. In three-fourths of the cases treated by the gynæcologist the local treatment is unnecessary. With bated breath the patient will describe her imaginary suffering, what the doctor, with "wise saws and modern instances," said, how he acted, and a lot of exaggerations, while in truth there was little aside from the aches and pains coincident to disturbed functions.

The practitioner is not altogether to blame, the patient will have the operation, *nolens volens*; it is done

to satisfy the morbid craving for some uterine treatment; the fashionable craze is yet on, and it will require time to modify it. The yearning of many women perhaps never will be satisfied until they are operated on.

Let it be fully understood that the writer does not condemn surgical methods when necessary, but we will, without fear, assert that nineteen out of twenty of the gynæcological operations are unnecessary; many are criminal because the operator knows they are uncalled for. Let us enumerate a few of these procedures that are to a greater or less degree passing into oblivion. The "bilateral" section of the os, the "antero-posterior" section; the almost countless cases of laceration of the neck, all to be sewed up—the use of the "murderous sponge tent," etc., all of which are dead or dying, except in rare cases. Many operations are performed by the desire of the patient; her condition is morbid, her nervous system disordered, some aches or pains in the pelvic region, some slight lesion, and the knife must be used; the gynæcologist yields, she tells her friends she must be operated on, the doctor has given her that chance to live and become once more a useful woman. She is a heroine. In ninety-nine out of one hundred instances no operation is necessary or justifiable. I tried an experiment sometime since. I selected a number of uterine caaes consecutively, not one of whom an operation upon was necessary, but I suggested to each that perhaps an operation would be required, or that it possibly would benefit them, and almost without exception they were willing, in some cases, determined to have something radical done "at once," "how soon will you operate?" And I may add that several have been operated on, but not by the writer. A year or two ago an eminent surgeon stated that he had never, or had his father, a large practitioner, met a case that the laceration of the os was severe enough to require operative procedure. Now I regard this view as an error on the conservative side. There are many cases in which it is absolutely required; in one notable instance occurring in my own practice the woman had become insane, was from time to time placed in an asylum. She was radically cured by closing the lacerated margins of the os and is now a useful and hoppy woman.

It is to protest against these indiscriminate operations that I am prompted to write. Only a few days since a splendid woman, healthy, and with few aches or pains, consulted me as to whether she should have an abdominal section performed; the only lesion was some slight deposits that were being absorbed, the remains of an old pelvic cellulites. This woman was almost ready to submit, and yet she asked, "Why should I have this done? I am not suffering to any great extent; I am in better health than for years." This is an example. The suggestion was infamous. While the woman was intelligent, she was almost ready to have this formidable procedure take place; perhaps she would become a heroine—the proud thought that she, too, had had one of these great capital operations performed on herself.

The abdominal surgeon should devote himself exclusively to that work and should be patronized, assisted and sustained by professional men. Above all, he should be honest and if it be possible to have relief afforded by other means he should so advise, and it should be done. At last if the operation is required beyond all question, let it be performed, not before.

Now, then, what shall we do to relieve these patients before the knife is resorted to? Treat the moral as well as physical condition. Resort to every known method before you mutilate, injure or perhaps destroy your patient; adopt all the various treatments, including electricity and placebos, change of the mode of living, if it be possible, and try the various tonics that direct their action principally to the uterine system, and there sre a number of excellent ones. Among others the old domestic remedies, dioscorea and michella repens are to be recommended. I have no hesitation at this time in recommending the compound entitled "Dioviburnia." This useful combination stands first of all that we now have, and like all tonics, no matter for what object they are exhibited, it will take time, and time is often the best adjuvant for any treatment. A little less surgeyr, a little more conservatism, and we will have better results and fewer deaths.

TRANSLATION.

FROM THE GERMAN.

Translated for the REVIEW, by FRITZ NEUHOFF, M.D., St. Louis.

THE INFLUENCE OF ACUTE FEBRILE DISEASES ON THE COURSE OF PULMONARY PHTHISIS.

That pulmonary phthisis may be cured by intercurrent acute febrile diseases is established by the histories of the two following cases:

CASE I.—On November 19, 1889, there entered the clinic of Dr. Chelmonski, a married woman, æt. 38, who presented the following well-marked symptoms of phthisis: great emaciation, palor and weakness, rise of temperature in the evening, night sweats, pain in the chest, and severe cough. These symptoms had been present for about two months, though patient had been rather delicate since birth. Her family history is not known. Physical examination showed dulness on percussion over a circumscribed area of the right lung in the neighborhood of the angle of the scapula. Over this same area there were heard, on auscultation, ill-defined vesicular murmur, râles and increased vocal resonance. The sputum contained pus cells and tubercle bacilli.

Patient moreover had an ulcer of the gums undoubtedly of tubercular character.

On December 4, having been put to bed near an erysipelas patient, the phthisical patient likewise contracted well-marked facial erysipelas. This erysipelas

lasted six days, during which time patient's cough increased, expectoration became more abundant, and the bacilli of Koch disappeared from the sputum. Furthermore, the ulcer of the gums began to swell, became red, and showed signs of healing. Albuminuria was present during three days.

After the erysipelas subsided the symptoms of phthisis began to vanish, and in twenty-six days the patient left the hospital apparently perfectly well. The physical signs had also undergone a change. The râles had disappeared, and the dulness, though still present, was less pronounced.

Case II.—A physician, æt. 30, descended from a healthy family, consulted Dr. Chelmonski in April, 1889, concerning a severe cough from which he had suffered for a long time. About six weeks ago he had also frequent chills and morning sweats. Temperature, 38.9° C. Pulse, 100. Physical examination revealed induration of apex of right lung. Sputum was full of Koch's bacilli. Two months later patient contracted typhus fever from a prisoner having this disease whom he attended. During this intercurrent disease the fever rose very high, the cough increased very much, but the sputum was free from Koch's bacilli.

Three months after the typhus fever had disappeared the patient appears to have been well also of his phthisis. He had gained in weight, had no fever, and though he coughed a trifle, his expectoration contained no bacilli.

The above are two undoubted examples of the beneficial influence which acute infectious diseases exert on the pulmonary phthisis. The question suggests itself, Why are examples of this kind so very rare? The answer is found in the post mortem records, in which the author could not find a single instance of a patient dying from an acute febrile disease presenting evidences of consumption. Consumptives must, therefore, be considered as in a manner exempt from acute febrile diseases, except when directly exposed to contagion, as in the two cases above cited.

To account for the favorable influence which febrile diseases have on consumption, Dr. Chelmonski advances the following theory:

Fever, instead of being detrimental, is in reality a curative agent. It is a reaction of the organism to destroy the bacilli and to get rid of them and their poisonous products. Anything, therefore, which increases the fever, favors the reaction and assists in the getting rid of the bacilli.

Of course, in order that the outcome of the struggle between organisms and parasites shall end in favor of the former, it is necessary that the organism be not too much debilitated to be able to react powerfully.

Other authors have spoken of cases of lupus and syphilis which appear to have been cured by intercurrent erysipelas.—*Deut. Med. Woch.*

Implanting of Artificial Teeth.

Until now it has only been possible to replant real teeth which had been extracted. Znamensky is the first who has successfully planted porcelain or caouchouc teeth in the alveoli of dogs and men. These teeth are reported to have become firmly attached to the gums. Little holes are drilled into the artificial teeth. Into these holes granulations from the alveoli grow, and when these granulations ossify the tooth is firm.

It makes no difference whether the artificial tooth is planted into the cavity of a recently extracted tooth, or whether a new cavity has to be first dug for it in the healed up gums.—*Cent. f. Med.—Med. Chir. Rund.*

A Substitute for, or a Supplement to, the Tuberculin Treatment.

Sommerbrodt (*Berlin klin. Woch.*) has seen only one case of complete cure of consumption by tuberculin. This case was in the incipient stage of the disease. In all other cases all accomplished by tuberculin was improvement in the general nutrition and the appetite, and diminution of the nightsweats, the cough and expectoration. Bacilli in the sputum and fever, however, still continued. The dulness over the affected lung, instead of diminishing, actually increased. In one case a cavity formed while the treatment was in progress.

Moreover, the tuberculin treatment offers many disadvantages, such as requiring the patient to stay in the hospital, and subjecting him every few days to increased febrile reaction. On the other hand, free from such disadvantages and devoid of any danger, is the creasote treatment. It consists in the administration of from 1 to 2 grammes of creasote daily, but given in capsules immediately after the three principal meals. Sonmerbrodt, therefore, recommends this treatment as a substitute for, or a supplement to, the Koch treatment. He reports 17 cases of cure from creasote. In these cases not only did the phthisical symptoms vanish, but no vestige of the previously well-marked dulness remained. —*Med. Chir. Rund.*

Treatment of Intussusception in Children.

Steele treats intussusception as follows: The child is given opium to control the intestinal peristalsis. It is not anæsthetized, and a large rectal tube inserted. Through this large tube a smaller tube is introduced. Through the latter, bicarbonate of soda and tartaric acid solutions are alternately poured.

Should this manœuver prove fruitless, air is injected through a double catheter. Should this also have no effect, then irrigation with warm water is tried. All these manipulations, assisted by massage and change of posture are continued from twenty-four to 48 hours before laparotomy is resorted to.

Should the latter operation become necessary, Steele practices the median incision. He now finds the most congested portion of the gut, and follows it until he finds the seat of obstruction. Should excessive meteorism be present, the gut may be cut into at any point,

emptied, sewed again, and the operation continued.

Should œdematous swelling render the reduction of the invagination difficult, Steele punctures the intestine repeatedly with a fine needle. When gangrene is present the locality of the obstruction determines the choice between artificial anus of resection. Of prime importance is rapid proceeding, so that the time consumed in operating will not exceed half an hour.—*Med. Chir. Rund.*

Undetected Absence of Internal Organs.—Dr. Liebmann (*Cintralbl. f. Gynak.*, December 20, 1890), describes a curious instance of extreme arrest of development in a married woman, which remained undetected on account of one circumstance, and was suddenly discovered through another. A woman, æt. 45, came under Dr. Liebmann's care for a tumor in the left groin. It was elastic, of the size of a man's fist, and not tender, but gave rise to pains which radiated down the thigh. It proved to be a lipoma, although at first it was taken for hernia. When 27 years old she had married a widower, æt. 60, and when Dr. Liebmann examined her she had no idea that she was in any way malformed. In exploring the relations of fatty tumor, however, Dr. Liebmann discovered that though the mammæ were well formed, and the external genitals present, though ill-developed, the vaginal orifice was absent. There was no indication of any vagina. On careful rectal exploration no trace of any uterus or vagina could be detected. The patient had never menstruated, nor felt anything like the menstrual molimina. In other respects it appears that she was strong and healthy.—*British Medical Journal.*

Disinfection of Privies—Gerloczy, experimenting with the contents of privies and latrines, finds that for the mere purpose of deodorization crude carbolic acid is quite sufficient, it has, however, not much effect as a destroyer of germs. For removal of odor and disinfection of privy contents, by far the best substance is sulphate of copper. This, when added to sewage in the strength of 1-1000, clarified it quickly, destroyed all bacteria, and rendered the fluid odorless. Neither corrosive sublimate, the sulphates of zinc or copper, nor carbolic acid, sufficed for the disinfection of dry excrement. The author, as a result of his experiments, is strongly of opinion that in sulphate of copper, "blue vitriol," we have a most valuable and cheap disinfectant, that has the additional advantage that it is not very poisonous; and in any case its bright blue color prevents a possible mistake.

Physicians and other readers of the Review should not fail to examine its advertising pages, where much that may prove of interest will be found.

WEEKLY MEDICAL REVIEW.

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William Dickinson, Associate Editor, 1322 Olive St.

TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this Review, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings, carefully prepared in ink, accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the St. Louis Weekly Medical Review, 520 Olive Ltreet.

All letters containing business communications or refering to the publication, subscription, or advertising department of this Review, should be addressed to The Medical Review Association, 914 Locust Street, St. Louis.

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SATURDAY, MAY 2, 1891.

To Non-Subscribers.

We maill of this week's issue of the "Review" 10,000 extra copies to non-subscribers with the hopes of adding to our already large list of subscribers.

As an inducement we wiill furnish them the issues for the months of May and June free, their subscription commencing with the July Volume.

See prospectus and subscription blank on advertising page v.

The Grand Conspiracy Discovered.

History furnishes numerous instances of plots discovered and defeated just upon the eve of their apparent successful execution. We are able to add one more of *discovery* to the long catalogue. Defeat and submission

is still in the alembic of the future. Rome had its Cataline; England its Guy Fawkes; the United Colonies its Arnold; the issues of the present impending crisis are at the behests of the American Medical Association.

Mercantile and manufacturing pursuits, for the attainment of certain specific ends, usually mercenary, combine, form syndicates and trusts; until convinced by undoubted revelations, we fain would have regarded the quiet pursuit of the medical profession exempt from similar combinations. Demonstration, however, compels the confession that this *too* is involved in the common maelstrom. A conspiracy, ingeniously concocted, far-reaching and widespread, is now vigorously prosecuted by the aggregation of multifarious and remote factors, to achieve objects and ends, as they seem, personal and mercenary. The grand conspirator aud magician is at Washington. He has just made the astonishing discovery that that city is the legitimate home of the American Medical Association, of its Journal, and of all its varied interests; he, doubtless, regards it as a great national mistake, that that city was not the place of its birth. Having passed through the periods of infancy and adolescence, he now with the innocent accents of the cooing dove, artlessly claims that the *Journal*, at least, should be restored to its rightful abode; and the paramount object of his machinations and that of his minions, is to transport the entire plant thither. The attempt, in November last, was made through the Trustees of the *Journal*, to ordain by a simple vote the contemplated transference. This motion had well nigh prevailed; the sentiments expressed were nearly equipoised; but those of the member from Arkansas, who magnanimously shrunk from the arbitrary exercise of the power to decide a question and interest in which the entire patronage of the *Journal* had an equal voice, prevailed; and it was then voted to refer the entire responsibility to the definitive action and decision of the Association in general session. Thus was happily defeated the first charge of the gentleman's light brigade.

But to render the consummation the more certain another agency is introduced, acting in full harmony with the former, and, doubtless, manipulated by the same hand. The knowledge of the existence of this dual head has but recently come to our knowledge. Not by vague rumor, but through the voluble revelation of its own agent. This is the alliance of an advertising agency, which for its successful efforts in securing the removal of the *Journal* to Washington, is to be rewarded with the control of the advertising department of the *Journal*. Therefore, collecting and adjusting the unknown with the known, the present attitude of the entire scheme is about as follows:

The chief engineer is already at Washington; inspired with the ambition to become the editor in chief, he has by various agencies, arguments and inducements, suborned men and medical journals in his interest for the accomplishment of this end; and as the principal argument, alleging, "as Washington is the Capital of the nation, therefore, all that is of a national character should be there congregated." So much for engineer No. 1, chief. The partner in this conspiracy, No. 2, the advertising firm, has, for a considerable time been cavorting over the country, visiting the larger cities, interviewing men and journals, which he has already subsidized by the promise of advertising pap, while itself proposes to monopolize that of the entire country, and with an honesty of declaration, akin to effrontery, announces its prospective partnership in the grand scheme, and $10,000 a year almost in its grasp, as the reward for its agency in securing the removal in question. The intrinsic benefits to the *Journal* are quite secondary. Removal is the first thing to be secured; anything to beat Chicago. This secured brings in its train the prize of editor in chief, with its anticipated emoluments, preferable to a government position, and next the instalment of the advertising firm in its proper position, with the already declared perquisites.

The interests of the *Journal* is the pretext, but in fact is appropriated as the innocent vehicle and instrument of diverting ample profit to the benefit of the manipulators. Engineer No. 1, then, is to be the editor in chief, and Engineer No. 2 the autocrat of the advertising columns—doubtless an efficient combination! If one and one make two, this is the mercantile as well as the arithmetical sequence.

If any member of the Association, well informed as to the comparative advantages of different cities for publishing the *Journal*, and, in the exercise of his unbiased judgment, conscientiously believes that the interests of the *Journal* will best be subserved by its removal to Washington, his action will be in accordance with his convictions; with him we have no controversy, but will simply say, scrutinize well the actions of men; the trend of obvious influences, the logic of events, and the significant echoes from diverse sections, voiced forth by the numerous communications on this subject in the *Journal*. These conspire to confirm the intimation that other interests than those of the organ of the Association are the prime objects to be subserved under the cloak of the immense good that is to accrue to the *Journal*. If a change of location is demanded, we confidently represent that the city of St. Louis combines all the requisites for the successful prosecution of this enterprise, and in most respects is far superior to Washington. Its facilities for publication are abundant; its advertising patrons are to be found in the numerous manufacturing houses here engaged in the various branches of pharmacy, and in addition, in those of sister cities whose advertisements would naturally seek its pages, from whom a large income is to be derived; here are medical colleges and able faculties, besides a large, strong and active body of medical men, eminent in their several departments.

In respect to patronage and financial status, the income of the *Brit. Med. Jour.* is $130,000 per annum, with an accumulated capital of $200,000. Its circulation is 17,000, and yet this is only one-half or one-quar-

ter of that which the *Journal* ought to have, embracing legitimately the entire United States as its constituency.

While Chicago is the great city of the Northwest, St. Louis is the central metropolitan city of the United States. More accessible from all quarters, equally favorably situated for transmission to all points of the compass. St. Louis is not only central in geographical location, but central, in a very high degree, in point of patronage to the *Journal.* For while the five Eastern States, Massachusetts, New York, New Jersey, Pennsylvania and Maryland, embracing a population of nearly 16,000,000, furnish 851 subscribers to the *Journal*, the five Western States, Ohio, Indiana, Illinois, Missouri and Iowa, with a population of but 14,000,000, furnish 1486 subscribers. The latter five have, therefore, relatively, twice as many subscribers as the five Eastern designated. Does this comparison argue nothing for the location of the office of publication at the West, and especially at St. Louis? The editor of the *Medical Mirror*, one of the Board of Trustees of the *Journal*, says: "Unquestionably, St. Louis is the hub of the continental wheel, toward which all the spokes point."

Again, at the last meeting of the Association at Nashville, the cities, St. Louis, Chicago and Kansas City, were represented by a larger proportion of physicians than any other city. While the cities at the East were conspicuous by the absence of the same.

Dr. Eggleston, of Springfield, Ill., in *Journal* of January 26, takes the bull by the horns, and demonstrates by commercial statistics, the financial absurdity of its removal to Washington; and while replete with suggestions worthy of the highest consideration, he diversifies the closing portion of his communication with the coruscations of exploding bombs, that uncover and illuminate the real object of the double-headed hybrid represented by engineers No. 1 and No. 2.

No less impartially and truthfully, as well as handsomely, Dr. Thomas Manly, of New York, in his letter to the *Jonrnal* writes: "If another location is selected, it must be in the direction of the occident; for the bone and muscle, so to speak, and the brain too of the American Medical Association comes from the West.

The suggestion of St. Louis as the proper place of publication of the *Journal*, is a conviction entertained by us for years, in which we have reason to believe thousands of others concur, to whom especially that city is their business center; and if no resident physician is deemed competent to discharge the multifarious duties of the editorship, the remedy is at hand; import one. Now, let all the members of the Association who would avoid connivance with, or participation in the great "*Journal* conspiracy" exposed above, refrain from expression or act, from swelling the factitious cry, "On to Washington." Since two-thirds of the members reside west of the Alleghany mountains; since very many of these, for different minor reasons, cordially desire a change of location of the *Journal* office and solely for the promotion of its highest interests; since the facilities for publication are so abundant in St. Louis; since the number of subscribers in that city and State is already large and can be greatly increased; since the number of manufactories of pharmaceutical preparations, and appliances indispensable to the medical profession, is locally so large, whose advertisements as well as those of sister cities, of like character, would naturally seek the pages of the *Journal* without the intervention of the $10,000 agency, the reward for securing its removal to Washington; since on account of its centrability the successive issues of the *Journal* from St. Louis can speedily reach its subscribers; since, in our opinion, competent men, residing in St. Louis, can be obtained to ably edit the *Journal*, we urgently appeal to the present members of the Association, and all sister journals in all sections of the country to unite with us in this campaign. We also urge upon those members in attendance at the ensuing session at Washington, loyal to the highest interest of the *Journal*; loyal to the preferences of the great constituency, and loyal to their obligation to the central metropolitan city of the United States to manifest this loyaly by their acts.

Till now we have withheld expression of our position not because we had not decided opinions on this great and important question, but because the session in point of time was at a distance, and we did not wish to enter the arena at a long range, and by prematurely expending ammunition unnecessarily, dilute and dissipate effort.

In respect to railroads, numerous trunk lines from North, East and South St. Louis, and as many diverge in opposite directions, St. Louis is then the Alpha and Omega of the immense railroad systems of the United States, and on the great highway of corresponding systems projected for linking to our country the nationalities of South America, with their boundless resources of wealth, now in progress of rapid development. Within the domain of our own continent, extending, from Halifax to the city of Mexico, from Alaska to St. Angustine, all portions are tributary to this city, the grand city for reception and distribution, the radiating center of the continent. Grand and sublime is the prospect! No city of any nation, of any clime can be compared with it for centrality of location, beauty of situation, the joy of the whole earth." The "where" of publication of the *Journal* is of little importance compared with the "how;" this is not to be determined by location, but by the wisdom, sagacity discrimination, judgement, literary and scientific ability of the ostensible and real head. Wherever the office of publication shall be situated, the valuable and eminently practical suggestions, with some modifications, of Dr. H. B. Hemmenway, of Evanston, Ill., in the issue of the *Journal*, February 14, are worthy of profound consideration, viz., there shall be an editor for each section of the Association, who shall, in rotation, prepare the successive numbers of the *Journal*, under the supervision of the

editor in chief, until the work of the meeting is finished; and, thereafter, these sectional editors shall have supervision of papers in their special departments.

The West and Southwest have claims upon the consideration of the Association that in the past have been ignored, and through sectional prejudice have been persistently discriminated against. The Northeast and East cannot now say: "We have no need of thee." For medical and surgical science are indebted for some of their highest achievements to Missouri, Illinois, Kentucky, Alabama and Georgia. The only distinctive journal on Bacteriology, the latest great phenomenon of scientific gemmation that has appeared, and which is destined to revolutionize the entire realm of medicine and surgery, had its honored birth in Missouri, and some of the best work in this department has been done in this state.

These are only some of the many reasons that might be enumerated why the *Journal*, if removed, should be transferred to St. Louis, in essentials for its publication equal to Chicago, and far excelling Washington.

American Physicians.

(*Journal de Medicine.*) The *Medical Gazette*, of Liege, republishes an article by an American physician, Dr. Clevenger, little complimentary to his fellow countrymen.

Of 227 medical schools, he states, in the United States and Canada, only 30 require a period of three years of study; in some the period does not exceed four months! Thanks to the existence of these manufactories of diplomas, and of the diplomaed—those receiving them, there are let loose each year 5,000 incipient physicians, who can thenceforth, as Prof. Adams says, practice their ignorance upon humanity.

The medical schools are established by subscription; every subscriber can become a professor by paying towards the common stock a given sum.

The chief occupation of the students is to gather patients to the office of the professors, for which kind service diplomas are given as compensation. Later having themselves become practitioners, they furnish more readily to their teachers consultants, who will be able to render justice to their own ignorance.

While in Europe the title of professor implys a degree of respectability and reputation for scientific attainment, in the American professorship, are found political pretenders, of ordinary intelligence or ignorant, whose lectures are recitals of their vanity, crammed with absurdities and medical cant. It would be a great mistake in selecting an expert among the professors of our schools, for a judge to presume that possession of a title was any evidence of knowledge. It is but an accident, if distinguished physicians are found among the number of those in charge of hospitals and asylums; for these positions are obtained by intrigue and by virtue of sundry sums paid into the hands of politicians.

In law, slander of person is a criminal offense, for which fines or the luxuries of the penitentiary are the penalty. Of what commensurate penalty, then, shall that man be deemed worthy, who unblushingly slanders not only his countrymen, but those sustaining more intimate relations—his confreres? No wonder that American physicians, even the best, are snubbed or treated with indignity by those abroad, whose minds are prejudiced by the slanderous and false statements belched forth by such unconscionable blatherskites as one Dr. Clevenger. Had he—be he native or foreign born—confined himself to the simple truth (perhaps not capable of it) he would have displayed less longitude of his long ears; the truth, in some instances, is sufficiently humiliating, even without exaggeration. His windy vaporings, poured into ears too receptive, are received abroad as veritable testimony and are regarded as applicable to most of our medical schools legally incorporated. The statement that any of these in the United States require a period "not exceeding four months" indicates a sublime and culpable obliviousness of truth; and that "the great pursuit of the medical student is to corral patients for his teacher, for which service his lecture fees are remitted," is the mendacious conceit of a disordered imagination, and is too absurd for a calm refutation. If Dr. (?) Clevenger will, however, confess that he has thus demeaned himself, has received a diploma from a medical factory requiring not more than four months, we will gauge our estimate of him accordingly, forgive his gross offense to his fellows, and leave him to himself; he is past redemption. The foul reflections which he casts broadcast upon the profession, of which he claims to be a member, finds a fitting commentary in the sentiment of the adage, "that is a foul bird that fouls its own nest."

Physicians and Accident Insurance.

In November, 1888, Dr. George Bernays, of St. Louis, cut his finger while performing a surgical operation. Erysipelas set in, and he died within thirty days. Miss Bernays, daughter of deceased, demanded of the United States Mutual Association the sum for which the doctor was insured, claiming that his death was the result of the accident. The company admit the cutting, but deny that he was seized with erysipelas then, claiming that he had had the disease nearly all his life. They claimed further that as "there was no visible mark on his hand at the time of his death," there was no liability upon them to pay the insurance, by reason of a stipulation in the contract or policy. The rulings of the court and the final decree in this case will be of interest to physicians throughout the country, and will have a material effect upon the readiness of physicians to take accident insurance policies.—*Medical News.*

The above case never came to trial. The attorneys for the insurance Co., were not long in ascertaining that they would not be able to successfully defend the

case upon the ground proposed in their petition; hence, a speedy comprimise was effected with Miss Bernays, upon a basis entirely satisfactory to her.

Notice to Delegates to Washigton.

The Western Passenger Association has refused to grant commutation fares from points West of the Illinois and Mississippi Rivers, and South of the Ohio River. We are not informed of the reasons of this close discrimination.

Special rates are therefore available on the West and South only from points on the several rivers above mentioned. We regret that many of our friends from Western cities are thus excluded from railroad facilities which heretofore have been so generously bestowed.

Personal.

Information is just received that our distinguished friend, the humorist of the medical profession, W. P. King, M.D., of Kansas City, Assistant Surgeon of Missouri Pacific Railway Co., is making arrangement for attendance on the meeting of the American Medical Association at Washington, D. C., on the 5th prox.

MEDICAL ITEMS.

The State Legislature.—The Legislature of Wisconsin has authorized the creation of three distinct medical examining boards, viz., Regular, Homœopathic and Eclectic.

The Weekly Medical Review, of St. Louis, has again changed its editors. The gentlemen now in charge of this valuable journal are G. W. Broome, M. D., and Wm. Dickinson, M.D. The former gentleman we have had no personal acquaintance with, but the latter is truly one of the most scholarly and refined gentlemen in the State. We predict for the journal great success.—*Med. and Surg. Reporter.*

Removal of Journal to St. Louis.—At the last meeting of the St. Louis Medical Society, resolutions were offered by Dr. R. M. Jordan, recommending the removal of the office of publication of the *Journal of the American Medical Association* to St. Louis, instead of to Washington; also that the delegates of the St. Louis Medical Society be requested to exert their influence to this end; which were passed unanimously.

National Sterility.—In France in 1888 there were 882,639 births and 794,933 deaths. The rate of births has fallen from 30 per 1,000 in the early years of the century to 23 per 1,000. The number of marriages has fallen to 7.1 per 1,000, and the number of births to each family has fallen to 3. Divorces are increasing in frequency, especially among the educated classes, while the tendency is for marriage to take place later in life. —*The Journal*, Little Rock.

Vaccination.—Before the vaccination by Jenner was adopted, small-pox was one of the most formidable scourges of the human race, causing a mortality of 10%. Since its general adoption it is less than 1%. During the prevalence of small-pox in Prussia from 1857 to 1861 nearly eight thousand mong the civil population died. The mortality in the army, where vaccination was rigidly enforced, was practically *nil.*

During the period of thirty years just before the introduction of vaccine in the province of Trieste, the deaths from small-pox alone were 14,000 per 1,000,000 of inhabitants, and only 182 during the period of two years which followed the practice of vaccination.

NEWS OF THE WEEK

Dr. Park Does Not Accept the Call.—Dr. Roswell Park has not accepted the chair of the Principle of Surgery in the Rush Medical College. It is believed now that he will remain at Buffalo, and not remove to Chicago as at first reported.

Number of Matriculants at Rush in a Year.—Two hundred and twenty matriculants are attending the spring course at the Rush Medical College, Chicago. That institution had in attendance, before its winter session closed, nearly six hundred students.

Railway Surgery.—The *Railway Age* suggests in its last issue that if others of the general managers would give more attention to the department of surgery on their respective lines, that hundreds of thousands of dollars would be saved thereby. We hope the editor does not mean to make the surgery any cheaper than it is.

"Two Birds With One Stone."—Dr. Frank L. James, editor of the *St. Louis Medical and Surgical Journal*, is out of the city for a short period of time enjoying a much needed rest from office work. We doubt not, however, but that the traditional "two birds" will have to succumb, as it is understood that the meeting of the Pharmaceutical Association at New Orleans will share his attention while absent.

Koch's Method Faulty.—After a most thorough trial, Prof. Senn, we understand, is free to admit that the method of treating tuberculin, proposed by Koch, is absolutely faulty, and can never be placed in the category of rationalism.

Prof. Senn undertook his investigations with the Koch lymph with the sincerest hope that it would prove to be a remedy of great scientific value, not only in

consequence of his earnestness in behalf of those afflicted, but also on account of his great admiration for Dr. Koch himself; and the conclusion at which he has arrived, may be relied upon implicitly.

PENNSYLVANIA AND WISCONSIN.—There is a bill before the Legislature of Pennsylvania prohibiting the exhibition of physical deformities, infirmities, and maladies as a source of pecuniary gain.

The Wisconsin Legislature is also about to prohibit the exhibition of the pedal extremities of the ballet girls before the public audiences of its good people. We take it that there are no baldheads in the Wisconsin Legislature.

BOOK REVIEWS.

WOOD'S MEDICAL AND SURGICAL MONOGRAPHS, Vol. 9, No. 2, embraces three subjects viz.:

The Clinical Use of Prisms and the Decentring of Lenses. By Ernest E. Maddox, M.B., of Edinburgh.

The reader is first introduced to the alpha of the subject, elucidated in an intelligent manner and by successive gradations is conducted through the more obtruse portions to the omega, closing with a brief reference to the nomenclature devised by Dr. Stevens, of New York. This merits a careful perusal and cannot fail to interest and profit.

The second subject is Electricity in the Treatment of Uterine Tumors. By Thomas Keith, M.D., LL.D., and Skene Keith, F.R.C.S., Edinburgh.

This monograph is dedicated to Dr. Geo. Apostoli, and is the narrative of the treatment by electricity of 106 cases of uterine tumors, as the author says, reported in the order in which they presented themselves, and the amount of every dose of electricity employed.

This treatise occupies 172 8vo. pages embracing the minute history of the cases differing in variety, magnitude and attended by differing results consequent upon treatment. The practical aspect of this agent in the discussion of uterine tumors could not be presented in a more convincing manner. It is at least the faithful exposition of the experience of two men devoted to this special branch of surgery, and as such commands the like treatment to others pursuing the same specialty.

The third paper is devoted to "Ether Drinking," Its Prevalence and Results. By Ernest E. Maddox, M.B.

The author records his "personal knowledge of the subject, and also such information as he was able to obtain respecting the prevalence of the practice, its origin, localities, sources of supply, and the observed results. This he has obtained by a series of replies to questions proposed to twelve doctors, four Roman Catholic priests, and one clergyman of the church of Ireland, and from other sources." The practice dates from 1842, having been first practiced in Draperstown, County of Derry, Ireland.

It is especially interesting as a historical narrative. This is the February number of the annual series, published by Wm. Wood & Co. If all future numbers shall be of as high excellence as the present, the enterprise cannot fail of realizing all reasonable expectation.

FOREIGN CORRESPONDENCE.

BERLIN LETTER.

BERLIN, April 3, 1891.

DEAR DR. NEUHOFF.—Last week being counted as belonging to the Easter holidays, the Berlin Medical Society omitted its regular meeting. This week the German Surgical Congress meets here, and the local society has again decided to postpone its meeting.

Thus far, there have been two sessions of the Surgical Congress. I shall give a brief abstract of the proceedings.

In the first session, that all absorbing subject, the treatment of surgical tuberculosis by "tuberculin," was discussed by Prof. Bergmann, the chairman of the Congress.

He said: "The *local* and not the *general* reaction is characteristic of the effect of tuberculin in all forms of tuberculosis. The general reaction has been observed to follow also the injecting of tuberculin in cases of actinomycosis and large soft sarcoma, in which the autopsy failed to reveal any form whatsoever of tubercular disease.

Unfavorable results following tuberculin injections should not form the basis of rash and illogical conclusions. In order to prove that an outbreak of acute miliary tuberculosis, following tuberculin injections, is due to these injections, we must establish beyond a doubt:

1. That the reaction fever did not diminish as the dose was increased.

2. That the post-mortem examination reveals a focus from which the bacilli have spread.

3. That the spreading of tubercles shows that these tubercles are of recent date."

This last proposition is, indeed, a hard one to prove.

Reviewing his experience, Prof. Bergmann remarked, that in many apparently cured cases of tuberculosis, fresh tubercular infiltrations and ulcers appear in localities where none were formerly observed. To account for this phenomenon, it has been assumed that the now apparent tubercles were formerly inactive, "sleeping" tubercles which the tuberculin has awakened.

Now, it so happens that these awakened and now active tubercles manifest themselves from six to ten weeks after the beginning of the treatment. The above assumption is, therefore overthrown, for it is not very

probable that these latent "sleeping" tubercles would withstand for so long a time the action of tuberculin, which we know to be so very effective in the incipient stages of tuberculosis.

It is apparent from the above experience that tuberculin does not prevent relapses of tuberculosis.

Dr. Koenig, of Goettingen, said, that since he commences the treatment of tuberculosis with ½ milligr. doses of tuberculin, and then slowly increases this dose, his results have been more favorable than formerly. He finds that tuberculin is contra-indicated when there is disseminated tuberculosis of different parts of the body and when a clear determination of the extent of tuberculosis of the joints is impossible. According to his experience, some patients improve slowly under the treatment, and the improvement soon comes to a standstill. In other cases the improvement under treatment is more decided. This is especially true in lupus of the mouth.

Dr. Koenig offers the following explanation of the therapeutic action of tuberculin: It causes the tubercles to become saturated with exudates and transudates of serum and leucocytes, both of which are germicides.

Dr. Schede, of Hamburg, related his experience which, in main, coincided with that of Dr. Koenig. He added that good nourishing food and perfect hygienic surroundings were absolutely indispensable to assist the beneficial influence of tuberculin.

Dr. Senger, of Crefeld, next read a paper on the treatment of surgical tuberculosis by means of iodoform injections. He believes that he has discovered why in some cases this treatment succeeds and in others it fails. It is not the iodoform, but the formic acid produced by the oxidation of the iodoform which exercises the curative influence. If circumstances are favorable for this oxidation, the remedy is efficient, otherwise not. Furthermore, he has observed, that injections of the formate of soda and of æthyl ether are always beneficial.

Dr. Rubenstein, of Berlin, attributed the favorable results obtained by iodoform injections practised at his clinic to the fact that the injections were made directly into the diseased tubercular bone, and not into the joint cavity, as is usually done.

The second day of the Congress began with a discussion between Prof. Bergmann and Liebreich, as to the therapeutic value of cantharidate of potassium. Bergmann pronounced the remedy as worthless in lupus, and stated that the improvement supposed to follow its use was nothing more than the continued variation which was likewise observed in cases not under treatment.

Liebreich retorted that he hoped soon to be able to present cases manifesting undoubted improvement from the cantharidate treatment.

Dr. Koenig described his method of treating congenital luxation of the hip-joint. It consists in chiseling an articular cavity for the head of the femur in the lateral surface of the pelvis. The femur will then anchylose in this artificial cavity. The doctor has applied this treatment in two cases, which, however, unfortunately died of intercurrent diphtheria.

Dr. Urban (Leipsig) presented a patient who had suffered from lupus involuing the left temple, cheek and side of the neck. A cure was obtained by excision of the lupus, followed by the transplanting of healthy skin on the denuded surface. The result is excellent.

Prof. Thiersch here took occasion to offer some remarks on skin grafting. He stated that the thinner the skin which is transplanted, the better the result. He has observed that in young, not fully-grown, subjects, the transplanted skin also grows in thickness, and, therefore, we need not hesitate to transplant thin sections of skin.

The combined surgical and tuberculin treatment of pulmonary cavities was next discussed by Drs. Sonnenberg and Hahn. The conclusions were that great care must be exercised in selecting the cases. Patients having more than one cavity in the lung should be discarded. Even should the cavity be cured, no guarantee can be given that a relapse is not probable.

Dr. Benda demonstrated a case of cortical epilepsy which was cured by osteo-plastic trepanation and excision of part of the cerebral cortex. The history of the case is as follows:

On Dec. 13, 1888, a young soldier fell from a horse, and struck his head on the asphaltum pavement. For a time no evil consequences, except an occasional headache, seemed to have followed this injury. One and a half years later the patient fell down unconscious, while in the act of saddling his horse. After that, attacks of vertigo, approaching faints, hysterical symptoms and apathy developed. This continued for four months. Then epileptic attacks of increasing frequency and severity came on. The attacks always commenced with contractions of the large toe of the right foot, and with hallucinations. Each attack was followed by transient paralysis of the right leg. From these symptoms Dr. Benda concluded that there was a disease of the cortex in the neighborhood of the motor center of the right foot. He, accordingly, trephined, loosened the dura mater and exposed the cortex. Then carefully irritating with the pole of an electric battery, he delineated a round surface one centimeter in diameter, which, when irritated, would cause contraction of the great toe of the right foot. Although this surface did not look diseased, Dr. Benda excised it to the depth of two or three millimeters. The wounds were dressed carefully and good union resulted. Paralysis of the right leg and arm followed, but soon again disappeared. The patient soon regained mental and physical health, barring a slight weakness of the right arm and leg. It is now five months since the patient was operated on, and he can be considered as perfectly well.

Prof. Grult, chairman of the Committee on Narcosis statistics, read his report. The total number of anæsthesias recorded was 24,675. In 22,656 chloroform was employed, ether in 470; a combination of chloroform

and ether in 1,055; the A.C.E. mixture in 415; bromethyl in 27.

Among the cases in which chloroform was used, there were 71 cases of accident, of which 6 ended fatally. Five accidents but no deaths occurred with the chloroform and ether mixture; four accidents and no deaths with the A.C.E. mixture. No accidents and no deaths occurred when ether alone or bromethyl were employed.

The proportion of deaths from chloroform was, therefore, 1 in 3,776; the proportion of accidents from it, 1 in 319. The proportion of accidents from the chloroform and ether mixture was 1 in 211; from the A.C.E. mixture it was 1 in 104.

The accidents above referred to were attacks of asphyxia.

In this letter I shall report briefly the transactions of the last two sessions of the Surgical Congress.

Prof. Schoenborn demonstrated a case of large defect of the frontal bone successfully treated by Koenig's method.

The patient was a young man who, last June, collided with one of the buckets used in a mine. As a result he sustained comminuted fracture of the skull and contusion of the brain. The loose bone and the injured portion of the brain were removed. After this, the external wound rapidly cicatrized.

The scar, however, was insufficient protection for the brain. Patient could not wear a hat, and at times the pulsations under the scar were so threatening that a plastic operation was decided upon. Accordingly, the scar was excised, and a scalp-periosteal-bone flap was dissected and chiseled from the top of the head, and transplanted to where the former scar had been. The wound on the top of the head was now grafted with skin. Both transplantations were successful, but the cosmetic effect was hideous. The patient's new forehead was covered with hair, and the top of his head was bald. To remedy this difficulty, the scalp was again removed from the forehead and restored to its original site, and the bald spot was transplanted to the forehead. The patient now is presentable in appearance, and has solid bone on his forehead.

Dr. Eiselberg mentioned a case in which bone defect was remedied by the planting of a celluloid plate in the wound.

Dr. Schimmelbush and Karg next exhibited, by means of a projection microscope, the effect of tuberculin injections on tubercular tissue. Specimens of tubercular skin, joints, and glands were exhibited. The microscope revealed that tuberculin produces an inflammatory process in the diseased tissues, and the result is a "beginning cure."

A real cure is not obtained because the bacilli are not killed. No necrosis occurs in the tubercular tissue. This "beginning cure" is the picture of the clinical cures. The microscope, however, reveals the presence of the remaining giant cells, whose proliferating property increases the new formation of tubercles. The malignity of these remaining giant cells, and of the bacilli in the tissues has also been demonstrated by the inoculation of animals with these clinically cured tissues.

By far, the most interesting paper read at the last meeting, was that of Dr. Brunner, on the presence of pathogenic cocci in the sweat.

Up to the present time it was believed that the micro organisms could not pass through the unbroken skin. Dr. Brunner's experiments, however, upset this belief.

A patient, with carbuncle of the face, called on Dr. Brunner. A few days later patient's father came, suffering from carbuncle of the neck. Still later, a servant of the patient came, having numerous furuncles of the fingers. The source of infection for these three cases was traced to a goat, having an ulcer (presumably anthrax) of the teats, which had been milked by the three patients.

The old gentleman's carbuncle spread, and resulted in systemic infection. The fever was combatted by phenacetine, which produced profuse sweating. Dr. Brunner rendered patient's forehead antiseptic, and then collected the sweat from it in sterilized tubes.

After the patient died, pus from his carbuncle, some of his blood and the sweat above mentioned were examined and all were found to contain staphylococcus aureus and albus.

To confirm his conclusions, Brunner now inoculated various animals with different kinds of bacilli, and some days later gave the animals pilocarpine.

The sweat thus produced was examined, and in each case the particular kind of bacillus with which the animal had been inoculated.

Dr. Eiselberg corroborated Dr. Brunner's experiments.

Dr. Reichel read a paper on the acquired immunity against pus cocci virus.

He found that by injecting gradually increasing doses of staphylococcus pyogenes aureus into the peritoneal cavity of dogs, they would not develop peritonitis, but acquired an immunity against the disease, so that finally 100 cc. of the inoculating fluid could be injected without causing peritonitis. The latter dose would invariably kill dogs which had not undergone the gradual increase of dosage.

Moreover, dogs which had been subjected to the graduated doses of pus cocci could also tolerate doses of pus ptomaine injections large enough to kill ordinary dogs. And, *vice versa*, dogs which had been subjected to increasing doses of pus ptomaine injections were found able to stand large doses of pus cocci, without reacting.

This ends the proceedings of the Twentieth Surgical Congress.

Yours truly, AL. J. KANNE, M.D.

CORRESPONDENCE.

WHAT WILL BECOME OF IT?

FANCY HILL, N. C., April 18, 1891.

EDITOR REVIEW.—I few days ago I saw a uterus which had been amputated through mistake. The operator thought he was removing a tumor when it turned out to be the upper half of the uterus. The left ovary was badly diseased and this was removed also. The right ovary and tube were not removed. The uterus was enlarged to about one-half its normal size. The mucous membrane was very much diseased, being in a degenerated, cheesy condition. Now the question is, what will become of that remaining ovary, should the girl get well? Will it continue to throw off the egg or not? Again, would the uterus have returned to its normal condition had it not been removed? Will you or some of the readers of the REVIEW answer the above.

M. W. GIBSON, M.D.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, April 18, 1891, the President, L. BREMER, M.D., in the chair.

DR. BROOME read a paper reporting a case of (see REVIEW April 25, p. 321)

UTERUS BICORNIS,

followed by one by Dr. N. Guhman, on the same subject.

DR. BOND said.—Doubtless malformations of the uterus and of the vagina often exist, and are not recognized. To this cause may be referred many cases of difficult labor in which the presentation is abnormal. It is very difficult to establish a positive and fixed form of deviation, for the reason that deviations proceed from either arrest of development, or from arrest of growth of the organ. Up to the twentieth week the process of development goes on, and is usually then completed; the process of growth continues to the twentieth year. Until about the eighth week the septum that divides the ducts of Mueller is still intact; no absorption of the septum that separates the two ducts has taken place; but about the third month the septum has disappeared entirely. About the fourth or fifth month the septum of the vagina and the septum of the uterus have entirely disappeared, the two Muellerian ducts coalesce, and only one continuous canal exists, forming the cavity of the uterus and vagina; while the angle that exists between the two cornua of the uterus still exists, at which are formed the uterus and Fallopian tubes. Then these cornua begin to fill out, and simultaneously is developed the fundus of the uterus as a flat surface; the next step in development is the rounding out of the fundus. Now the arrest of development may occur at any period of these steps of development, and consequently there will be a variation of development, just in accordance to the stage at which the arrest takes place. There may be a complete arrest of one of the ducts of Mueller, and a perfect development of the other. Such a condition would scarcely be called a malformation; it is an imperfect development. In the case reported by yourself, there possibly might have been a septum dividing the vagina and the convex, and yet the septum interposed between the cornua of the uterus may have been removed; in other words one uterus fully developed, and a double cervix and double vagina; the fact that there was no menstruation during the period of pregnancy wonld rather predispose to such a supposition.

The speaker said, two years ago he was called to deliver a lady, who had experienced great misfortune in losing her children. In making an examination, he found the child lying crosswise, and also a decided fulness in either iliac region; and the conclusion was enforced that this was a case of imperfect development or union, in which the fundus had failed to fill out as is normal, and thereby the proclivity to cross presentation was explained, for she had had cross births in five labors preceding the one in question. After the delivery of the child, and expulsion of the placenta, the uterus was carefully examined, and it was very easy to detect the development in either cornu, and the sulci, and also a depression where the fundus ought to be. The speaker thought that the explanation of the occurrence of repeated crossbirths or imperfect presentation was to be found in imperfect development of the uterus.

DR. COLES said.—Dr. Bond stated that there might be one uterine cavity and two cervices; and that the probability of this anatomrical condition was borne out, by the fact that the woman did not menstruate during pregnancy. Cases of bicornate uteri present only two ovaries; and if pregnancy happens to take place in one horn of the uterus, suspension of menstruation would be almost as frequent, if not quite as frequent, as if there was but one cavity. It is true there are apparent exceptions; but if we consider the nature of those so-called menstrual flows, which take place under such circumstances, we would find they are not true menstruations, but simply a bleeding, such as occurs in extra-uterine pregnancy. If one cornu of the uterus is impregnated, there is a certain amount of developmental impulse extended to the other; in other words, if there is a double uterus, and one side is impregnated, at the end of pregnancy, the uterus, that is not impregnated, would be found to be larger than it would have been, if pregnancy had not existed in the other cornu. Of course the vessels which lead to that side are enlarged, and on the side which is impregnated the muscular tissues grow to a much greater degree, than on the side which is not impregnated; but so far as the ovarian system is concerned, the influence of impregnation upon either horn of the uterus will be practically the same, that it would be if there was only a single, normal uterus; and

in those cases where we have heard reports of menstruation during pregnancy from a bicornate uterus, the speaker thought the bleeding is rather the result of a congested state of the mucous lining of the empty uterus; such as we have in extra-uterine pregnany.

Dr. Henske said he could not understand why pregnancy in these cases should interfere with ovulation. It was supposed that ovulation went on with menstruation. If one horn of a bicornate uterus should become impregnated, that condition would not interfere with ovulation on the side, in which the impregnated cornu is located. Therefore we would expect in every case of pregnancy in one partition of the uterus, in case of double uterus, that menstruation and ovulation would go on in the other side. It is now thought that ovulation goes on in spite of pregnancy.

Dr. Bond rejoined.—It is no longer held that ovulation and menstruation are necessarily concurrent, and that menstruation is the result of ovulation; on the contrary it is quite well established that ovulation and menstruation are separate and distinct processes; that ovulation goes on in connection, but not necessarily, with menstruation; that at certain times ovulation and menstruation will occur similtaneously, though usually we have ovulation as the prior process, and not menstruation; that has been undoubtedly proven by a number of laparotomies, in which the evidences of ovulation were present, and yet no menstruation had occurred. Then too again pregnancies may occurr in which no menstruation has preceded. The rutting period of the deer occurs only at that period of the year when conception, if it occurs, will be followed by delivery at a period of the year when the conditions of nutrition, the growth and development of the future offspring, will be subserved. This animal ovulates frequently during the year, and yet the capability of conception occurs only at a time when the function of reproduction should take place. The same thing is found in the sheep, and the mare. So there is no longer any doubt but what menstruation and ovulation are not necessarily concurrent; that they are usually when conception takes place all will admit; for menstruation is a process of nidation; a process in which the mucous membrane of the uterus is prepared by having the epithelial surface thrown off for the retention and nutrition of the ovum during the period of its earlier fœtal existence. This is the purpose of menstruation. As an evidence that ovulation and menstruation are not necessarily related we may consider the experience of Mr. Tait, who found menstruation arrested only in 30 odd per cent of cases, in which both ovaries had been removed, and, in some cases, not arrested at all, even when the ovaries, and the greater portion of the uterus had been removed; while in 95% of the cases in which the Fallopian tubes have been removed and the ovaries not touched, menstruation ceased. Arthur Johnson of Kentucky claims that he has discovered a large branch of a nerve passing in the board ligament, between the body of the uterus and the Fallopian tube; and it is believed that this is the nerve of communication, between the spinal center and the uterus, that regulates menstruation. This is the reason why Mr. Tait found that menstruation is arrested in so large a percentage of cases, where the tubes have been removed; the nerve had been divided, and thus communication between the body of the uterus and the spinal center, which presides over menstruation, had been severed.

Dr. Coles said he admitted to be true all that Dr. Bond said, which is by no means new; but did not think that it explains why a common uterine cavity should not be accompanied by menstruation, while a double uterus may be; except on the ground, that the horn of the uterus partakes of the general developmental impulse of pregnancy.

SOCIETY NEWS.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

National Associations.

American Medical Association, Washington, May 5, 6, 7 and 8.

Medical Society of the State of Washington, Seattle, May 6, 7 and 8.

Missouri State Medical Association, Excelsior Springs, May 19, 20 and 21.

Indiana State Medical Society, Indianapolis, May 13, 14 and 15.

Kansas Medical Society, Wichita, May 13, 14, 15 and 16.

Illinois State Medical Society, Springfield, May 19, 20 and 21.

West Virginia State Medical Society, Fairmount, May 20, 21 and 22.

North Carolina State Medical Society, Asheville, May 26, 27 and 28.

Connecticut Medical Society, Hartford, May 27, 28 and 29.

Pennsylvania State Medical Society, Reading, June 2, 3, 4 and 5.

State Medical Society of Wisconsin, Madison, June 3, 4 and 5.

Delaware State Medical Society, Rehoboth, June 9 and 10.

Maine Medical Association, Portland, June 9, 10 and 11.

Massachusetts Medical Society, Boston, June 9 and 10

South Dakota State Medical Society, Chamberlin, June 10, 11 and 12.

Rhode Island Medical Society, Providence, June 11 and 12.

Michigan State Medical Society, Saginaw, June 11 and 12.

New Hampshire Medical Society (centennial), Concord, June 15 and 16.

HEALTH RESORTS, MINERAL WATERS, ETC.

EXCELSIOR SPRINGS.

These "Springs," situated in Clay County, twenty-five miles from Kansas City, on the Chicago, Milwaukee & St. Paul Railway, by the intrinsic value of the water, have attained in a few years a reputation, which few others have acquired in the same space of time. The variety and excellence of the waters, the natural beauties of the locality, vastly enhanced by art, the "Elms" hotel, commodious and complete in all its appointments, all combine to render the locality an attractive and popular place of resort; of which abundant evidence is found in the fact that a large number of organizations have recently held their meetings there. The State Medical Association convened there in 1890, and with so much satisfaction were its members entertained that it was voted to hold the next meeting there. Accordingly, the "Association" will again convene at Excelsior Springs on May 19, and continue in session for three days.

The Wabash Railway from St. Louis makes close connection with the Chicago, Malwaukee & St. Paul Railway at Birmingham and Lawson, as well as Kansas City.

A large attendance of the physicians of the State is anticipated, and the programme authorizes the expectation of many able, interesting and instructive papers on Medical subjects.

Ample accommodations will be furnished at the Elms, and at reasonable rates, all presided over by the affable, attentive and popular general manager, H. C. Fish.

SELECTIONS.

TAIT-WHITE CONTROVERSY.

To the Editors of the University Medical Magazine:

GENTLEMEN.—I enclose a copy of the letters which have recently been sent by Mr. Tait and myself to the *British Medical Journal* in reference to the subject of "The Present Position of Antiseptic Suregery." I would call attention to the fact that in the same journal for February 21, Mr. John D. Malcolm notes the want of agreement between some of Mr. Tait's statements as to the behavior of sponges left in the peritoneal cavity and the clinical facts.

He adds: "This is not remarkable when we, consider that he avowedly laughs at the knowledge acquired from scientific experiment, and prefers to found his opinions upon the evidence of certain household customs, on which he has put an interpretation, the accuracy of which is not above suspicion."

I am, etc., J. WILLIAM WHITE.

March 18, 1891.

SIR.—Prof. White replies to my criticism of Sir Joseph Lister's Berlin address, a task which I think I may venture to say had better have been left to Sir Joseph himself.

Fortunately for my present purpose, Prof. White puts the issue syllogistically, and formulates for both of us a major premise, upon the truth or error of which depends the whole conclusion; and I accept this issue freely. I say that germs of decomposition exist already in the blood and elsewhere in the body and are ever present, but do not bring about their results till death, or some condition which we call a tendency to death, gives them permission so to do. Prof. White says that the elaborate and carefully-conducted experiments of Hauser, Watson Cheyne, and others, completely contradict the statement "which is really the foundation of Mr. Tait's argument."

In reply, I say I care not a straw for elaborate and carefully-conducted experiments, no matter at whose hands, when their conclusions are diametrically opposed to every day experience. There must be an error in the experiment or in the minds of the experimenters—more probably in the latter. John Hughes Bennett and Arthur Gamgee, with others in the case, must be admitted to be skilled experimenters. By hundreds of experiments they showed that mercury has no action on the liver and secretion of bile, and that the absence of bile from the intestinal circulation of the animals experimented on killed them by slow starvation. But my daily experience and the daily experience of all humble unscientific practitioners like myself shows absolutely that mercury has a very potent influence on the liver and on the secretion of bile. My clinical experience shows, and it is published to the effect, that patients, gain weight and improve in health whilst every particle of bile formed by them is pouring out of a fistula in their gall-bladders. Mayo Robson and others have confirmed this; therefore, we laugh at Bennett and his scientific experiments.

In the present case how are we to explain, on the germ theory, the occurrence of abscesses in closed cavities, such as joints or the pleura, or in muscular tissue—or, indeed, anywhere save in open wounds—unless the germ theory is a delusion, or unless germs are omnipresent, and are at times, and for reasons not understood, permitted to wreak their wills? It is perfectly impossible to argue with people who can not see such a self-evident proposition as this.

But the facts of decomposition—save their immediate microscopic causes—have been known for centuries, and it has been only our want of reasoning power which has prevented us applying the every-day facts of the housekeeper's room to the processes of disease. Let me quote a familiar example. A solid mass of beef—say, a bed and silverside—is removed from a perfectly healthy ox, and is put at once into a sound and healthy pickle. The pickle is a powerful antiseptic, and if the pickle reaches the middle of that beef before the germs contained in it have had time to start their work, the

beef, in a few days or a week or two, will be fit to eat. But every housekeeper knows perfectly well that the result will depend absolutely upon the outside temperature. It would be absolutely impossible to pickle a piece of beef in August, which could be easily pickled at Christmas. Does Prof. White imagine that during the few hours—it may be few minutes—that the beef is exposed to the air, it becomes impregnated with germs right to the center, or is it not more consistent with common sense to believe that the germs were in it before it left the ox; and, therefore, in life? In truth, the facts of the housekeeper and the henwife are far more scientific, that is, far more exact, than those of our biological experimenter. They are in harmony with what I see in my work every day, and, therefore, it seems to me a perfect waste of time to follow Prof. White beyond his own major premise, which is utterly mistaken. I am, etc., LAWSON TAIT.

Birminghan.

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SIR.—As Sir Joseph Lister has usually ignored Mr. Tait's attacks, and as there seemed no reason why he should make the last one an exception, I ventured to reply to it, being impelled thereto not by any sense of peculiar fitness for the task, but by profound respect and warm personal regard for the author and exponent of the antiseptic theory, and by an abiding faith in the truth of that great surgical principle. A specific and utterly groundless charge contained in Mr. Tait's article as to the "deadly and dangerous" character of the double cyanide dressing, with which I have had a fairly large experince, and the use of which I have been teaching to hundreds of young men at the University of Pennsylvania, supplied a further motive for the reply which, but for these reasons, might well, as Tait intimates, have been left to able hands, if not to those of Lister himself.

In the communication in which Mr. Tait answers my paper there is, however, no evidence that he has anything to say which is worthy of Sir Joseph's attention. If his statements were as accurate as they are vigorous, or if the soundness and extent of his information were commensurate with the positiveness of his assertions, he would be a formidable controversial opponent; but the fact that he prefers the arguments as well as the literary style of the "housekeeper and the henwife" to those of biological experimenters materially lessens the value of his utterances. In the discussion of a scientific question of so much practical importance, I personally prefer to be guided by more accurate observations than those made by the average butcher or housewife in putting a piece of even a "perfectly healthy" ox into an equally "sound and healthy pickle! !"

My assertion was that "the fluids and tissues of the healthy living body are practically sterile." Mr Tait says in contradiction "the germs of decomposition exist already in the blood and elsewhere in the body, and are ever present."

In support of my position, I may cite, in addition to the experiments of Hauser and Cheyne already mentioned, those of Pasteur, Meissner, Koch, Zahn, Fodor, Chiene, Ewarts, Rosenbach, Crookshank, and others, all of which are familiar to bacteriologists, but are useless in an attempt to instruct Mr. Tait on account of his partiality for what he calls "the every-day facts of the housekeeper's room." If he will consent to accept the every-day facts of the surgical ward instead, and will recall the almost invariable absence of putrefactive changes in simple fractures; in uncomplicated synovial effusions; in ovarian cysts in contusion without solution of continuity; in pleural effusions, etc., he will realize that the germs of decomposition can scarcely be omnipresent, as he claims, as it would be "diametrically opposed to every-day experience," if their unvarying presence did not oftener give rise to the form of fermentation that we know as putrefaction.

Possibly, when Mr. Tait refers to the occurrence of abscess, etc., in closed cavities, in support of his position, he allows the difference between the germs of putrefaction and the microbes of suppuration temporarily to escape his memory, or, possibly, he purposely ignores this differentiation of such insignificant objects as it rests upon the evidence of gentlemen who waste their time in looking through microscopes and in comparing their observations and testing their results by biological experiment. If Mr. Tait had ever opened a true tuberculous psoas abscess or empyema without antiseptic precautions, he would have had an admirable "practical" opportunity of observing the effect of admitting germs, either of decomposition or of suppuration or both, to a fluid already containing the germs of tuberculosis, and would, perhaps, have avoided the appearance of ignorance as to some of the elementary facts of bacteriology.

There can be no doubt that pathogenic microbes do, now and then, gain access to the tissues of a healthy organism, but they are immediately and almost invariably eliminated by the excretory organs or destroyed by the action of the cells and fluids of the body. The interesting fact (I think, on the testimony of Rosenbach, Kocher, Becker, Krause, Ribbert, Steinthal and Kronlein, I may venture to call it a fact, though it is not an every day one) that osteo myelitis occurs in a simple fracture after micrococci have been injected into the circulation, although previously the "omnipresent" germs have exerted no influence, would seem to emphasize the difference between the occasional and accidental admission of pathogenic microbes into a healthy body (which is not denied), and the effect of an increased dose of such microbes upon an organism in which there has been established a *locus minoris resistentiæ.*

Possibly in the few cases of empyema, joint-abscess, etc., which are not tuberculous (and therefore dependent upon a specific organism, which I suppose not even Mr. Tait would claim to be ever present), some such infection does occur, but at present demonstrative proof of the exact channel of contamination is wanting. It is, however, equally beyond doubt that in many of them

an infection atrium exists, communicating with the cavity through the interstices of the tissues, or through the lymphatics. At any rate, it is a matter of common experience that such abscesses are exceedingly rare in non-tuberculous patients. Their occurrence, therefore, offers not the slightest justification for the sweeping assertion of Mr. Tait, who insists that we must either reject the germ theory of suppuration altogether or admit the "omnipresence" of the germs.

As to the "beef and pickle" argument, Mr. Tait surely did not realize that he was offering a "biological experiment" in evidence. If he did so deliberately, I would ask him to let me have the exact antiseptic value of the "powerful" pickle in its influence on both bacteria and spores; the methods used for disinfecting the cleaver and sterilizing the hands of the experimenter; the precautions taken in transferring the "bed and silverside" (whatever that may be) from the ox to the pickle, and such other information as may enable me to defend my major premise properly, or to renounce it if the "facts of the henwife and housekeeper" are really facts and are overwhelmingly against me.

The progressively improving results obtained by such experimenters as Meissner and Rosenbach in the preservation of portions of healthy animal tissue, by placing them with great quickness and scrupulous cleanliness in previously sterilized flasks, show the usual absence of germs in the healthy body, and serve at the same time to explain the failures of some earlier observers. As they acquired dexterity they became able to preserve in this way, without the use of any antiseptic solution, nearly every specimen.

In the face of such evidence as this, confirmed by other investigators, and reinforced by bacteriological study of the blood and tissues, statements as to the omnipresence of the germs and the consequent inutility of antiseptic treatment based on such insufficient grounds as those Mr. Tait advances are puerile. They would be laughable if the question involved was not one affecting human life.

I am, etc., J. William White.

Philadelphia.

The Present Position of Antiseptic Surgery.

Sir.—The allusion that I made to Prof. White's unnecessary readiness to take Sir Joseph Lister's place in an argument upon this subject will be found to bear an altogether different meaning from that forcedly put upon it by Prof. White. My article was the criticism of Sir Joseph's address in Berlin, where my own arguments were not only not ignored, but were pointedly alluded to and by name. That, however, is a matter of no consequence. Prof. White's unnecessary and inconsequent intervention was due to what he calls "an abiding faith"—a singular corroboration of the criticism I advanced against the whole antiseptic doctrine fifteen years ago. Its analogy can be found only in theological metaphysics, It is like the doctrine of "innate ideas"—it requires "an abiding faith," and, when that has been acquired, its recipient is wholly beyond the province of ordinary reason. I accept—I have often used as one of my strongest arguments—"the every-day facts of the surgical ward." It is precisely because I see the cut of the morning shave heal without suppuration in a healthy man, because I know that simple fractures heal without it, as do contusions without loss of continuity, and because of a hundred other daily facts of surgical experience which are ignored by the "peculiar people" of the "abiding faith," that I laugh at the whole thing.

The facts of the "beef and pickle argument," and those of the henwife and the housewife are quite familiar to everybody in this country, and, taken together with those of the every-day practice of surgery, they prove three things:

1. That the germs of putrefaction exist, with restrained potentiality, in all living tissue.

2. That the restraining influence is what we call, for want of a better name, vital force.

3. That when the restraining influence has its balance upset by what we call disease, lowered vitality, accident, etc., the germs are let loose to work their evil wills. This is the fundamental pathology which I was taught as a youth, and my mature experience confirms it every day in every particular.

One matter aside. Prof. White complains of my attack on the deadly and dangerous character of the double cyanide dressing. I have had no experience of it, and my objection certainly was *a priori*. But with the awful experience we have had of the poisonous effects of carbolic, have we not reasonable grounds for fearing in a "double cyanide" something far worse? The part of the whole business of the antiseptic processes, where ridicule becomes the most potent, indeed the only argument, is that when we have seen every few months an infallible nostrum introduced, adopted by those of the "abiding faith," sworn to as the perfection of the system, and then *incredibile dictu*, dropped into oblivion without a word of explanation or apology. Ordinary, plain-sailing, every-day folk, like myself, were charmed with the idea of the spray. It seemed so complete, so logical, that the confession on the part of Sir Joseph that he was ashamed of it put the final stone on the cairn of antisepticism.

I am, etc., Lawson Tait.

Birmingham.

DOCTORS' WHITE HATS.

The announcement that the doctors of Berlin have agreed that in future their coachmen shall wear white hats, so that the doctor's carriage may always be immediately distinguishable and the public enabled to summon medical aid from the street in urgent cases, has revived in this town the important subject of professional livery or insignia.

The College of Physicians and the County Medical Society were agitated last fall over a proposition to distinguish the doctor from the ordinary run of mankind by introducing a bright colored button to the lapel of his coat. Some wanted it to be modeled after the button of the Loyal Legion, and others favored a yellow badge, the well-known color of the quarantine. In this way, it was argued, a doctor could be immediately summoned at any time, or at any place in emergencies, and a great deal of embarrassing and, sometimes fatal, delays avoided.

There are doctors everywhere in Philadelphia. They are on every street, in every crowd, and at all gatherings, but they are not always distinguishable from common citizens, and there are many records of sad accidents in which there has been a startling amount of entirely unnecessary hurrying to and fro in search of medical aid.

The White Hat Idea Taking.

The younger doctors, whose faces have not become generally familiar, or acquired the settled professional aspect that is readily distinguishable, supported the button or badge device with might and main, but they were overruled by the Nestors of the profession, who claimed, rather uncharitably, in the opinion of those newly embarked in the struggle for fees, that a physician's reputation should be his best livery, and that anything savoring of advertisement would be beneath the profession.

So the button-badge proposition went temporarily to the rear. Now, it has come to the front again in the new form suggested by the recent official intelligence from Berlin. A number of Philadelphia doctors have returned from the general pilgrimage to the home of Koch and lymph, and naturally enough they are thoroughly imbued with the advanced notions of that great theoretic center of the scientific world.

Anything with the Berlin stamp seems likely to go and with a good many the white hat idea has already taken like vaccination. The suggestion will form an important subject of deliberation this spring in both the College of Physicians and the County Medical Society, and lively hopes are expressed that its adoption, in some form at least, by those august bodies will speedily follow. In that case, it is conceded, that other medical societies would easily follow.

An Opposing View.

Dr. Eugene P. Bernardy, one of the leading members of the County Medical Society, was asked yesterday if the organization was disposed to view the innovation with favor.

"I can speak only for myself," he replied. "I don't know what view the society, as a body, would take of the white hat idea, but personally I don't regard it with favor any more than I did the proposition to put buttons or badges on physicians' coats."

"Don't you think," he was asked, "that it would be a good thing to have some mark that would distinguish doctors' carriages from those of other people?"

"Yes, I certainly do, for this reason: We are often blocked on the street, while hastening to attend to an urgent case. This is often a very serious thing. The first thing to be done is to pass a law giving us the right of way, the same as in the case of an ambulance or the police patrol. They should have a clear road above all others, but we should have the same rights that would compel other vehicles and the crowds on the streets to give us the right of way immediately. I have known persons to block a physician's carriage from what seemed to be pure maliciousness, and then laugh at his helplessness and anger.

"I don't believe we should adopt the white hats. The Germans are great for display, you know, but it isn't so here. If a physician's coachman should wear the white hat that is proposed to be accepted as the professional insignia, it would look too much like mere show or advertisement.

A Yellow Flag Proposed.

"I am in favor of adopting this plan: Have a hook placed on the front of the carriage, and on that hang a flag. It need not be hung there all the time. Whenever there is any obstruction in the way the flag can be easily hung on the hook, and then removed when the way is clear again. It would be best to use the yellow quarantine flag, as that would be the most conspicuous and the most readily recognized when thrown out in the wind. This would be better, too, for doctors who haven't a coachman, and who certainly wouldn't want to wear big white hats themselves."

Dr. Bernardy was very much in earnest about the yellow pennant scheme, and it will probably be introduced into the discussions of the County Medical Society as a desirable modification of the white hat plan.

Would Help Business.

Dr. John Fulmer, a well-known specialist, who recently returned from Berlin with a stock of lymph and brand new theories, was, on the other hand, quite enthusiastic on the white hat idea. He isn't a member of the College of Physicians, the County Medical Soeiety, or any other medical society, but he is a vigorous thinker and a hard worker.

"My business is mostly on the road, like a good many others," he said. "It would be a mighty good idea to wear white hats, and I know lots of doctors right around here who are in favor of it. It ought to go. I drive my own team and I would wear my own hat. I've no doubt that I often go right by people who need me, and don't know what I am. It's much better than that idea of the College of Physicians to wear a little button. It would be a good thing at night too."

When There's no Carriage.

As there are some doctors who have carriages but no coachman, so there are others who have neither. They are in the majority in this town, and many of them fa-

vor the adoption of some mark that will distinguish the pedestrian healer as well as his more fortunate brother. Singularly enough, however, none of them who were interviewed on the subject yesterday were opposed to sticking the high white hats on the heads of the riding members of the profession or their coachman, and if the scheme passes muster, it is a reasonable inference that white hats will glitter on the sidewalks as well as the drives this summer.

"I would rather have a neat badge that would be generally recognized," one struggling young practitioner said, "but white hats would be an improvement on nothing. It's all well enough for doctors with big practices to say that it isn't dignified to do anything that looks like advertising, but there are lots of us who want to make people know who we are, to say nothing of the opportunities we would have to do good, if we could be readily distinguished by strangers as we pass by."

Against the Innovation.

Some of the German physicians themselves do not take cheerfully to the proposition. Dr. Berthold Trautmann even seemed to treat the suggestion with ridicule, and said it was as bad as the rainbow button or yellow badge advertising idea.

Nobody in this city knows more about the customs of German physicians than Dr. Theodore H. E. Gruel, who came here from Heidelberg. His attention, also, had been drawn to the white hat scheme, but he regarded it with disfavor.

"The laws and customs of the two countries are very different," he said. "In Germany the doctors are compelled to attend the poor whenever they are summoned, and the town pays them. There are physicians for the poor who have red lights at their doors, but all have to attend to whatever case they are summoned. There are no dispensaries for the poor, as there are here, and they are not needed, as the poor must receive the same medical attention as anyone else. Of course, the doctors have to be summoned from all places, but I am disposed to doubt the story that they have adopted the white hats. I certainly wouldn't wear a badge of any kind."

A Beautiful Thing.

A leading wholesale hat dealer on Market street said that he would be very happy to furnish the required hats to the profession, and was confident that he could furnish a perfectly satisfactory design. He thought that the best thing would be a hat somewhat higher, and of greater spheric circumference than the ordinary coachman's hat, and formed of shining white leather with feathers on one side, like a rooster's tail.

"Perhaps, white felt will be preferred," he said, "but the leather would have the advantage of being more luminous at night, unless some phosphoric preparation could be added to the felt. That, however, would be too expensive. White felt would be conspicuous on any moonlight night or in the neighborhood of electric lights or street lamps, but white leather would shine like a silvery star. It would be the most beautiful thing I can imagine."

THE NUMBER OF GRADUATES FROM A FEW OF THE AMERICAN MEDICAL COLLEGES.

The Meharry Medical College graduated a class of 13.

Chicago Hahnemann College graduated a class of 97.

St. Louis Medical College graduated a class of 68.

Michigan College of Medicine graduated a class of 27.

Georgia Woman's Medical College graduated a class of 7.

The Iowa University Medical College graduated a class of 21.

The Kansas City University Medical College graduated a class of 30.

Buffalo University graduated a class of 83.

Taylor University graduated a class of 13.

Texas Medical College graduated a class of 2.

Omaha Medical College graduated a class of 8.

Rush Medical College graduated a class of 189,

Bennett Eclectic College graduated a class of 25.

Starling Medical College graduated a class of 53.

Ensworth Medical College graduated a class of 23.

Georgia Medical College graduated a class of 53.

Detroit Medical College graduated a class of 48.

Tennessee Medical College graduated a class of 18.

Columbus Medical College graduated a class of 40.

The Chicago Woman's College graduated a class of 30.

The New York Eclectic College graduated a class of 19.

The New York City University graduated a class of 203.

South Carolina Medical College graduated a class of 15.

Marion-Sims Medical College graduated a class of 35.

Des Moines Eclectic College graduated a class of 11.

National Medical College District Columbia graduated a class of 24.

Grant University Medical College graduated a class of 13.

South Carolina University Medical College graduated a class of 15.

Keokuk Medical College graduated a class of 3.

The Southern Medical College graduated a class of 36.

Long Island College Hospital graduated a class of 82.

Fort Wayne College of Medicine graduated a class of 13.

The St. Louis College of Physicians and Surgeons graduated a class of 68.

—*Medical Standard.*

EXOPHTHALMIC GOITRE.

The *Neurologisches Centralblatt*, No. 4, 1891 contains a series of interesting abstracts of papers on this subject. The first is by Dr. G. Gauthier (*Revue de Medecine*, May, 1890, p. 409), who maintains that the disease is a vasomotor disturbance of the medulla oblongata. This, he considers, explains the symptoms, and also the cir-

cumstance that various functional mental conditions are often associated with exophthalmic goitre. Budde (*Ugeskr. f. Lager.*, 1890, 4 R. xxii, 4 u. 5) records two cases in women, one æt. 53, and the other 24, in whom this disease was associated with diabetes mellitus. He also is inclined to think that the seat of the disease is in the medulla. Russell Reynolds (*Lancet*, May 17, 1890) has collected forty-nine cases, and in many of them there were present various nervous symptoms, the most important being sensory disturbances and mental aberration, especially a "chorea of ideas." Sometimes motor symptoms, chiefly choriform movements, were present; eclampsia was sometimes observed. Schafnenger (*Med. Monatsschr.*, 1890, Bd. 11, H. 6) records a case of traumatic exophthalmos ending in recovery. The patient, æt. 7, and the illness was attributed to a blow on the right temple. Finlayson (*Brain*, 1890, Autum No.) describes a patient in whom exophthalmic goitre was complicated by paralysis of the third nerve. The last pathological case abstracted is that published by Hale White (*Brit. Med. Jour.*, March 30, 1889, p. 699). From a study of this and other cases he contends that the disease is a functional disturbance of the medulla, especially certain parts of the floor. His patient, a woman, died of acute pneumonia, and the small recent hæmorrhages so frequently seen in the brain of those dying of acute diseases were extrordinarily well marked. The other cases abstracted thus support his view. The remaining papers are one by Eulenburg (*Berl. klin. Wochenschr.*, 1889, No. 1). He discusses the relative frequency of the well known and the rarer symptoms; he advises clinical treatment and electric baths. Dauscher (*Weiner Med. Presse*, 1889, No. 7) records a case interesting on account of its severity; and lastly, an abstract is given of two cases recorded by Lemke (*Deutsche Med. Wochenschr.*, 1891, No. 2). One patient æt. 17, and the other 47; in both, half the enlarged gland was excised. Following upon this there was a diminution in the size of the remaining half, and the exophthalmos and the palpitation decreased. Seven months after the operation the improvement was maintained.—*Brit. Med Jour.*

Surgical Treatment of Granular Conjunctivitis. Darier (*Recueil d' Ophtalmologie*, December, 1890) says that most of the methods employed to cure granular conjunctivitis are ultimately successful, but the time occupied in the cure is usually very long, and in many cases the cure is only temporary. This method of treatment is based upon the opinion that the trachomcoccus, which has been found and described by Sattler and Michel, is the pathogenic agent in granular conjunctivitis. This trachomcoccus should be entirely removed, and this can only be done effectually by surgical methods. He divides the operation into six steps:

1. Anæsthesia by chloroform.
2. Enlargement of the palpebral fissure.
3. Complete eversion of the eyelids, so that the whole of the conjunctival surface may be exposed.
4. Scarification of the conjunctiva, the cuts being deep, and in parallel lines to the edge of the eyelid.
5. Scraping with a Volkmann's spoon.
6. Thorough brushing and washing with a solution of perchloride of mercury (1 in 500), the whole of the scarified surface being brushed with a hard brush. He has found this method very effectual, most of the cases treated being cured in about eight days, without the supervention of keratitis or ulcers in the cornea.—*Brit. Med. Jour.*

How to Make a Cup of Coffee.—It is asserted by men of high professional abilty, that when the system needs a stimulant, nothing equals a cup of fresh coffee. Those who desire to rescue the drunkard from his cups will find no better substitute for spirits than strong, new made coffee, without milk or sugar. Two ounces of coffee to one pint of boiling water makes a first class beverage, but the water must be boiling, not hot. Bitterness comes from boiling too long. If the coffee required for breakfast be put in a granitized iron kettle over night, and a pint of cold water be poured over it, it can be heated to just the boiling point, and then set back to prevent further ebullition, it will be found that, while the strength is extracted, the delicate aroma is preserved. As our country consumes nearly ten pounds of coffee per capita, it is a pity not to have it made in the best manner. It is asserted by those who have tried it, that malaria and epidemics are avoided by those who drink a cup of hot coffee before venturing into the morning air. Burned on hot coals, it is a disinfectant for a sick room. By some physicians it is considered a specific in typhoid fever.—*Dietetic Gazette.*

Irritable Stomach.—

℞	Magnes. sulph.,	℥jss.
	Ac. sulph. dil.,	gtt.xxx.
	Tr. cinnam.,	
	Tr. cardamomi,	aa ʒj.
	Aq. font.,	℥viij.

Dose: Wineglassfull every two hours till operation produced.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service.

FOR THE THREE WEEKS ENDED, APRIL 4, 1891.

Wyman, Walter, Surgeon. To inspect Delaware Breakwater Quarantine Station. March 27, 1891.

Purviance, George, Surgeon. Detailed as Chairman Board of Examiners. April 3, 1891.

Sawtelle, H. W., Surgeon. To proceed to Rockland, Me., on special duty. March 25, 1891.

Gassaway, J. M., Surgeon. Granted leave of absence for five days. April 2, 1891.

Godfrey, John, Surgeon. Detailed as member Board of Examiners. April 3, 1891.

Irwin, Fairfax, Surgeon. Detailed as recorder Board of Examiners. April 3, 1891.

Peckham, C. F., Passed Asst. Surgeon. Granted leave of absence for ten days. March 26, 1891.

Wasdin, Eugene, Passed Asst. Surgeon. Granted leave of absence for thirty days. March 27, 1891.

Stimpson, W. G., Assistant Surgeon. To proceed to Charleston, S. C., for temporary duty. March 26, 1891.

OBITUARY.

Bryson—At her residence No. 3833 Pine Street, this city, April 22, Mary Winter, beloved wife of Dr. John P. Bryson.

Prof. Braun von Fernwald, of Vienna, whose name has long been familiar to gynæcologists throughout the world as that of one of the foremost among practitioners and teachers of the obstetrical art, passed away on March 28, after a short illness, in the 70th year of his age. He was born at Vienna, and took his M.D. degree in the University of that city in 1847. He became *Privat-docent* in 1853, and not long after was appointed Professor in the School for Midwives at Trent. He was called to the Chair of Midwifery in the University of Vienna in 1857, and was elected Dean of the Medical Faculty in 1867 and again in 1871, and filled the office of Rector of the University in 1869.

Braun von Fernwald was not only a teacher of great authority, but a very successful practitioner. The specialty to which he devoted himself owes to him many valuable improvements in practice and some important additions to scientific knowledge. He was one of the pioneers of antisepsis in midwifery in Austria, and his name is associated with not a few operations and instruments, both in the sphere of midwifery proper and in gynæcology. His writings have already attained the rank of classics in Austria and Germany, and they are valued in other countries as the records of the life-work of a man with almost unrivalled opportunities of observation and possessing to a high degree the clinical insight and the resourcefulness in difficulties which constitute medical genius.

To Bruan von Fernwald the famous Gynæcological Clinic of Vienna, which was established in 1858, owes its existence, and his teaching has for more than thirty years been one of the most powerful attractions to draw foreign students to the Imperial city. With them, as well as with his own countrymen, he was immensely popular. He was looked upon with respect and affection by his colleagues of the Vienna Professorial College, of which he was, at the time of his death, the senior member; and he was trusted and beloved by the crowds of patients who came to him from the most distant parts.

The deceased Professor was the recipient of numerous Austrian and foreign orders and decorations. The rank and title of "Knight" was bestowed on him in 1872, and that of "Aulic Councillor" in 1877. In him the University of Vienna loses one of those who have done most in recent years to place the fame of its medical school on a secure basis. His funeral was attended by Dr. von Gautsch, the Austrian Minister of Public Instruction, by the deans and almost all of the professors of the several Faculties of the Vienna University, by crowds of students, and by a large number of the general public. Funeral orations were delivered over the grave by Professors Chrobak and Rokitansky.

PUBLISHERS' NOTICES.

Medical Books.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather binding. Published by Birmingham & Co. 1882. List price, $5.00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

J. H. Chambers & Co.,
914 Locust Street, St. Louis, Mo.

Popular Health Resorts, Lebanon, Mo., and Eureka Springs, Ark., reached via The Frisco Line. For illustrated pamphlet giving full particulars, address D. Wishart, Gen'l Passenger Agent, St. Louis, Mo.

Phenolid.—This is a new preparation of the Series C. H. N. Antipyretic and Antineuralgic which is recommended by some of our most prominent city physicians as being very valuable in Typhoid Fever, LaGrippe, Neuralgia, Neuritis, etc. Although we have not given Phenolid a trial ourselves, but as it is prepared by a well-known pharmacist of this city, we do not think the claims as set forth in their advertisement to be excessive. We recommend our readers to write for samples, and test the medicinal effects for themselves.

Porcelain Enameled Bath Tub.—One of the æsthetic requisites of an enjoyable bed is its absolute cleanliness; the enjoyment of a bath is greatly enhanced by the visible certainty of the immaculate purity of the tub in which the luxury is about to be indulged. The "tub" in question realizes all the requirements of the most fastidious, no opportunity being afforded for the accommodation of aught that offends the eye or sense. The manufacturers are the Standard Manufacturing Co., Pittsburg, Pa., who furnish them of all sizes and shapes with appendages or decorations according to the taste of the purchaser. Address as above

ORIGINAL COMMUNICATIONS.

A DAY WITH PROFESSOR SENN AT MILWAUKEE.

BY R. HARVEY REED, M.D., MANSFIELD, OHIO.

President North Central Ohio Medical Society; Surgeon Baltimore & Ohio R. R.; Member National Association Railway Surgeons; American Medical Association; British Medical Association; Honorary Member D. Hayes Agnew Surgical Society, Philadelphia; Texas State Medical Society, etc.

Read before the Forty-First Quarterly Meeting of the North Central Ohio Medical Society, Held at Mansfield, Ohio, March 27, 1891.

It was my good fortune to be able to spend Feb. 17, 1891, with Prof. Senn, of Milwaukee, and to visit with him the Milwaukee Hospital, of which he is the surgeon-in-chief. The hospital is pleasantly located on a high elevation, near the suburbs of that beautiful city, and is amply provided with all the modern equipments for the practice of antiseptic surgery; everything is scrupulously clean in every department of the hospital, while the operating room contains nothing outside of the actual necessities for conducting the various operations, and is kept as clean as it is possible for soap and water and antiseptic washes to make it; the best of trained nurses and assistants are at hand, and see that every knife and instrument needed has been thoroughly sterilized and made perfectly aseptic; the instrument table is covered with heavy plate glass, while numerous glass fixtures with rubber hose attached are seen hanging from the ceiling containing hot solutions of carbolic acid, boracic-acid and bichloride of mercury of various strengths, ready for use at any moment. The operating table is simple in its construction, but so arranged as to permit the operator to flood the wound to any extent desired, and have the surplus liquid immediately conveyed through a median opening, extending the entire length of the table, under which are two conduits, slanting from each end of the table to the center, which catch these liquids and convey them to a large metallic funnel under the middle of the table which connects with a sewer, and thus prevents soiling the floor of the operating room. As soon as the time for operation commences the doors are closed and locked, and no person is allowed to go out or in during an operation. Dr. Senn and all his assistants and nurses may be seen, prior to an operation, thoroughly scrubbing their hands with soft soap and hot water, cleaning their finger nails with a knife and good nail brush, after which they bathe their hands in a bichloride of mercury solution, and lastly with alcohol.

The coat of the operator and those of his assistants are removed, and in its place a neat, clean white operating gown is placed on each one. The patient is thoroughly cleansed before being etherized, and if the operation involves any part of the body covered with hair it has all been carefully shaven off; the field of the operation is now washed with a solution of bichloride of mercury, and afterward with pure alcohol, then surrounded with aseptic gauze or a towel, before the operation is begun.

The first operation consisted in a craniectomy on a young lady for intra-cranial pressure, principally in the lower portion of the brain on the left side of the cerebrum, which was supposed to be caused either by a tumor or a hydatid cyst, located in the neighborhood or within the right lateral ventricle, or caused by an effusion into the right lateral ventricle from tubercular meningitis. The patient's head had been closely shaven, and thoroughly cleansed in the manner already described; a horse-shoe incision was made in the scalp just above the right ear, turning down a flap some four inches in diameter; after the hæmorrhage had been controlled, the doctor took a gauge and a mallet, and cut a groove around an island of bone some two inches in diameter; this groove removed all the bony tissue to the depth of the inner table; when this was completed, which only required a few minutes, a narrow straight chisel was next employed with which he cut through the inner table and removed the entire island of bone without a scratch to the protruding dura mater, which bulged out through the cranial opening; as no cerebral pulsations could be seen or felt, the existence of intense intra-cranial pressure could be safely assumed. The doctor then took a large aspirating needle, which was attached to a vacuum bottle, and passed it directly into the right lateral ventricle, from which he drew three ounces of a light straw-colored liquid, containing a slight granular sediment; immediately the bulging of the dura mater subsided, and the natural pulsations were observed. The island of bone, which had been removed from the cranial window, was left out; a button-hole was cut into the center of the skin flap for a capillary drain, composed of a few catgut threads, and the flap replaced with interrupted silk sutures. The patient soon rallied from the operation and when I left the hospital showed marked signs of improvement.

The next was a double ovariotomy, with very extensive adhesions to the pelvic viscera on the left side, which were very difficult to break up; the pedicles were tied with silk ligatures, and returned to the abdominal cavity; after flushing the peritoneal cavity and making a careful toilette, he closed the abdominal wound with interrupted silk sutures, which included the peritoneum, after which the wound was carefully dusted with one part of iodoform to seven parts of boracic acid, which was in turn covered with a liberal supply of iodoform gauze, which was then covered with a thick layer of cotton and carefully bandaged.

The next case was a middle aged lady, who was suffering from a large ovarian cyst, which was removed with very great difficulty, owing to the fact that it had become completely adherent around the colon,

which passed, as it were, through the tumor, and required very great care to remove; in addition to this the tumor was adherent to the stomach, the liver, the small intestines and parietal peritoneum. Owing to the weakened condition of the patient it required great care and attention to enable her to go through the operation, during which they were obliged to give her numerous hypodermic injections of whisky, and stimulate the heart with frequent inhalations of nitrite of amyl; notwithstanding the length of the operation, which was greatly complicated and prolonged by the extensive adhesions, the patient had rallied fairly well before we left the hospital.

A large retention cyst of the right eye-lid was next removed, which was carefully dissected out, and the wound closed with interrupted silk sutures. After this we had a review of the cases which had been operated a few days before, among which was a radical cure for hydrocele by opening the tunica vaginalis testis, and packing the sac from the bottom with iodoform gauze, and allowing it to heal by granulation; before this was done, however, the edges of the sac had been carefully stitched to the integument; not a particle of pus was to be seen about the wound, and the patient, an intelligent young man, said he had not suffered a particle since the operation, which had all the appearance of being a complete success.

The next was a case which had been operated two weeks before for the radical cure of a right inguinal hernia, in which the mattress stitch had been used. This case had progressed without a bad symptom, and scarcely a perceptible rise of temperature; no suppuration, no pain, and but little discomfort, excepting that attending the confinement; and from the firm adhesions, the case gave evidence of really being a radical cure, which under ordinary circumstances is so seldom a real vindication of that which the name of the operation implies.

The next case that was presented for inspection was one that had been operated for a tubercular peri-pleuritic abscess, resulting from tubercular osteomyelitis of three ribs in which a resection of the seventh and eighth ribs had been made, and six inches of the sixth rib removed also. After which the abscess cavity had been thoroughly washed out with an antiseptic wash, and treated on antiseptic principles until now resolutions were almost complete. The patient was feeling comfortable, ate and slept well, and gave every evidence of happy results.

The next case was a lady who had been suffering from empyema of the gall-bladder, with septic peritonitis, in which gall-bladder a free opening was made, the edges of the visceral wound were carefully stitched to the integument of the abdominal wound, and after removing about a half pint of pus the gall-bladder was thoroughly washed out with a solution of boracic acid, and a fistulous opening established, through which the gall-bladder was irrigated with a 3% solution of boracic acid every few days, and the cystic and common ducts catheterized. The icterus, which had been a prominent symptom in the case before the operation, had now almost entirely disappeared, whilst the patient's appetite was rapidly returning, and with it she was gaining strength and flesh; and the stools which, prior to the operation, were clay colored, were rapidly returning to their natural color and consistency.

Another exceedingly interesting case was a lady on whom the doctor performed a nephrotomy on the right kidney for hydronephrosis. A free incision had been made in the lumbar region which had been carried down to the kidney, when the opening into the kidney was made by the use of a Paquelin cautery in order to prevent hæmorrhage; after which the kidney was washed out with a 3% solution of boracic acid, and a drainage tube inserted for the free escape of the constantly accumulating urine. The stenosis of the ureter was rapidly subsiding, and liquids could now be forced from the pelvis of the kidney through the ureter into the bladder. The kidney was thoroughly irrigated every day or two with a boracic-acid solution, which was done with comparatively little pain to the patient, who was now showing marked signs of improvement in every respect.

The next case was one of those horrible "fæcal fistulas" which had resulted from intestinal ulceration during an attack of typhoid fever, producing an abscess which opened into the right inguinal region in two or three places, which the doctor had operated and connected into one opening, establishing a straight fistula, which extended into the ileo-cæcal region. This was washed out daily with a boracic acid solution, which could be easily carried into the intestine and readily ejected from the rectum. The patient was extremely emaciated, and showed all evidence of having been one of those chronic cases which has endured untold suffering and distress, but was now beginning to improve, and was cheerful with the hope of her prospective recovery.

The next case was a poor fellow who had been suffering from a neuroma of the stump of the left arm, which had been amputated some years before, and which now required a resection in order to relieve him of pain and give him better motion of the arm. Accompanying this fellow was a boy who was suffering from the same difficulty of the index finger, which had also been operated in the same manner, and both were now happy convalescents with the prospects of soon being dismissed from the hospital, practically cured.

The next case was a man who had met with a severe accident a few days before, receiving a stellate fracture in the upper temporal regions of the right side with depression of the bone and grave injury to the brain substance, who had been operated some two or three days before, and the depressed fragments of bone removed, together with about two ounces of brain which involved the right motor area, producing paralysis of the left side. The wound was thoroughly washed out through the drainage tube with a solution of boracic-acid, during

which considerable quantities of brain substance escaped through the wound, which showed no signs of suppuration. The patient had some fever, a slight increase in the pulse, but was semi-conscious, and although suffering from partial aphasia, he would complain to the doctor how he felt, and when and where it hurt him. This was a very interesting case, and although doing well, we have grave doubts in our minds as to what the final results will be, as the injury was so severe that it seemed almost impossible for recovery to follow, even with the best treatment and most efficient care.

The next patient was a young man who came into the operating room smiling as though he was just going to sit for a picture. On inquiry I found that he had been suffering from an osteo-myelitis, involving the lower end of the left femur, a large portion of which the doctor chiseled away some two weeks before, and had filled the cavity with antiseptic bone chips, which had now become completely engrafted to the surrounding bone structure, while the external wound had closed, and the patient had far advanced in convalescence. Having been a sufferer for years from this distressing disease, and in so short a time receiving such decided benefits, accounted for his happy mood on entering the operating room, which to him meant health and happiness instead of pain and suffering.

The next was a young lady who also was smiling when she came into the operating room, rejoicing in her rapid recovery from an operation performed some ten days previous, for the removal of loose cartilages of the right knee, from which she had now nearly completely recovered, with almost perfect use of the joint and limb.

The next was a middle-aged gentleman who had been suffering from the dread disease of cancer of the pharynx, for which the doctor had made a complete excision of the pharynx removing all the cancerous structures by sawing through the jaw on the right side near the chin, and turning the inferior maxillary bone out of the road, thus giving him a comparatively open field for the operation, after which the jaw was replaced, and the soft structures carefully stitched over it. The external wound was almost completely healed, whilst the internal wound was rapidly healing, and showed every evidence of being a successful operation. If it does not prove permanent, it will, at least, prolong his days, and give him a degree of comfort well worthy of the operation, and at the same time give him a chance for permanent relief from this horrible disease.

The last two cases we were shown were no less interesting than the former, being two severe cases of lupus that were being treated with Koch's lymph. The one was fairly convalescent and showed every evidence of rapid recovery, while the other one, although less advanced, had not been on treatment so long, but showed an equal degree of improvement.

I learned that the doctor had under the lymph treatment numerous other cases, for various forms of tubercular disease, and on inquiry as to the practical success of this method of treatment, he said "that he had little confidence in its success as yet in the treatment of pulmonary tuberculosis, except possibly in very early stages of the disease, but that in surgical cases of tuberculosis, such as lupus, and the various forms of tubercular disease of the bones, glands and joints he thought it was going to be a decided success."

This brief report of 18 cases we have just enumerated has been given for two reasons, 1st, for the intrinsic value of the cases themselves, and 2d, to show the great variety of cases which are daily coming under the care of Dr. Senn, who, it is only justice to remark, made no preparation whatever for this report. In fact he had no knowledge that I was going to make such report, or even that I would be present on this particular day until a few hours before my arrival.

It has been my pleasure and privilege to visit the doctor several times each year for a number of years, and I have always been astonished at each visit with the profusion of rare and interesting cases, with which his hospital is constantly crowded, saying nothing of the great variety of cases which come under his daily observation at his private office.

Whilst I have visited nearly all the large hospitals of this country, I can say with all candor and profound respect for other surgeons that I have never spent my time more profitably than I have attending the clinics of the Milwaukee Hospital conducted by Dr. Senn.

TRANSLATION.

FROM THE GERMAN.

Translated for the REVIEW, by FRITZ NEUHOFF, M.D., St. Louis.

PHENOCOLLUM HYDROCHLORATE, A NEW ANTIPYRETIC AND ANTIRHEUMATIC.

The above is a white crystalline powder, which may be regarded as a salt obtained by the action of hydrochloric acid on amydo-acet-paraphenetidin. The latter is a base formed from the combination of amydo-acetic acid and phenetidin. This base is called phenocollum purum, and though soluble in hot, it is insoluble in cold water. It is, therefore, advisable to use the hydrochlorate of the base, which is soluble in about 16 times the amount of cold water.

Prof. Mering found that 1.5 g. (22 grains) of phenocollum hydrochlorate, administered to large rabbits, produced no effect.

Administration of the drug during the febrile stage of typhoid and pneumonia, revealed the fact that it is a reliable antipyretic which, in doses of 15 grains, reduces the temperature almost 2° C. Never did it produce collapse or cyanosis. Diaphoresis was not greater than after large doses of antipyrin. One gramme (15 grains) of phenocoll produced about the same decrease of tem-

perature as one and a half to two grammes of antipyrin, or as one to eight-tenths of phenacetin.

Various reports from the private practice of several physicians establish the fact that the new remedy in doses of 0.5—1.0 g. (8 to 15 grains) is an excellent nervine and anti-rheumatic.

On account of the favorable testimonials above related, Dr. Gerhart decided to give the new drug a trial in his clinic.

At first the medicine was given in solution, but this was found to change in a few days from a neutral to an alkaline reaction. This change of reaction and consequently of taste was presumed to be causative of nausea in one case, and therefore it was decided to administer the drug henceforth in powder form.

To test its antipyretic properties, phenocoll was administered to cases of far advanced phthisis with irregular hectic fever. It was found that single doses of 0.50 g. (7½ grains) will lower the temperature about ½° C. If this dose is repeated every hour until three doses have been given, usually a fall of 1° will be noticed. This fall of temperature will only last a short while.

Single doses of 1 g. (15 grains) will, as a rule, cause a 1° to 1½° fall of temperature, commencing about an hour after the taking of the medicine and lasting about two hours.

Amounts of 5 g. (75 grains) given in divided doses during the day will procure almost total absence of fever. The medicine seems more able to control the rise of temperature which usually occurs in the evening, than that which occurs during the day.

In severe cases of acute articular rheumatism (some of them complicated), in which salicylate of soda, antipyrin, antifebrin and phenacetin had proved powerless, daily doses of 5 g. phenocoll soon controlled the pains; though it did not influence the temperature.

The remedy was tried in one case of gonorrhœal rheumatism, but proved useless.

In no case did phenocoll, even in doses of 5 g. a day, act unfavorably on the heart, intestinal tract or kidneys.

After the ingestion of about 5 g. the urine has been observed to become of a red-brown color, and to contain hydrobilirubin and indican. On the addition of liquor ferri sesquichlor. the urine becomes dark and cloudy. This reaction, however, is no longer obtained by the urine 12 hours after the administration of the remedy has been stopped, showing that it is quickly eliminated.—*Deut. Med. Woch.*

Gaiacol-Eucalyptol-Iodoform Injections in the Treatment of Tuberculosis.

After having tried successively injections of various remedies in tuberculosis, Pignot gives preference to a liquid containing per cubic centimeter of eucalyptol, 5 centigr. of gaiacol and 1 centig. of iodoform. Sterilized oil of sweet almonds is used as a vehicle. The dose of the liquid varies from 5 to 12 cubic centimeters a day. These injections are well borne, and do not cause any local symptoms when antiseptic precautions are observed.

The only locality which is able to receive the repeated injection is the retro-trochanteric fold. Eucalyptol alone, or associated with iodoform, has also given sufficiently good results; but definite success was obtained only in the case of a young man afflicted with subacute tuberculosis, and who took at the same time iodoform internally in doses of 5 centigr. a day. The duration of the treatment was two and a half months. Three years later the cure was not contradicted.

The addition of creasote to eucalyptol has appeared especially useful as a local anæsthetic, injections containing creasote being a great deal less painful.

The best results of all, however, were obtained by a combination of gaiacol, eucalyptol and iodoform. One patient treated by the latter combination was apparently totally cured of acute tuberculosis engrafted on an old lesion.—*L' Union Med.*

The Analgesic Effect of Electric Light.

Dr. Stein, of Moscow, has employed electric light as an analgesic in 14 cases and has obtained almost wonderful results. The light used was supplied with a reflector. In those cases where the pain was in the head or neck, the illumination of the painful part was continued from 10 to 15 seconds. When other parts were affected it was continued five minutes, or until the intense heat was complained of. Several cases of intercostal neuralgia, lumbago and rheumatism were completely and permanently cured by one application.—*Deut. Med. Zeit.*

Statistics of Crime.—In the United States in 1890 there were almost 10,000 more convicts in penitentiaries than in 1880.

In 1850, with a population of 23,000,000, the United States had less than 7,000 convicts in prisons; in 1860, with a population of 31,000,000, there were in prisons 19,000; in 1870 with a population of 38,000,000 the number of prisoners was 32,000; in 1880, with a population of 50,000,000, the number of prisoners was 58,000; and hence it is predicted that the census for 1890 will show with a population of 63,000,000, prisoners, 72,000. In marked contrast are the figures as to the progress of crime in England, where the criminal convictions fell from 15,033 in 1868 to 9,348 in 1889; from Scotland where they fell in the same time from 2,490 to 1,723; and even in Ireland, they fell from 3,084 in 1870 to 1225 in 1890. Of the 107 convicts in the New Hampshire State prison, Nov. 30, 1890, only 13 could neither read nor write, besides 11 who could only read. Of 140 men in the St. Cloud Reformatory in Minnesota, only 10 could neither read nor write.—*Bradstreet's*, abstracted from *Public Opinion.*

WEEKLY MEDICAL REVIEW.

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TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this Review, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings, carefully prepared in ink, accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the St. Louis Weekly Medical Review, 520 Olive Ltreet.

All letters containing business communications or refering to the publication, subscription, or advertising department of this Review, should be addressed to The Medical Review Association, 914 Locust Street, St. Louis.

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SATURDAY, MAY 9, 1891.

His Honor, Mayor Noonan and His Medical Appointments.

"I have done the deed; didst thou not hear a noise?"

The long expected day arrived; the official guillotine has done its work. Decapitated heads roll through the street in promiscuous confusion, sympathetic mourning on this side, mutual congratulations on that. The mayor has applied the sign manual to the principle of rotation of office; that possession does not imply perpetuity; reward of most active friends; discomfiture of enemies.

We cordially commend the mayor's excellent judgment, displayed in his selections for the medical offices, and admire the man for the courage demonstrated in carrying out completely the principles governing the rotation of office.

Dr. W. N. Brennan, Health Commissioner, we have known for some years; his gentlemanly address will commend him to the public, and his long medical experience will abundantly qualify him for the discharge of his official duties.

Dr. Heine Marks is a young active member of the St. Louis medical profession, and is a gentleman of studious habits; his industry, fidelity and practical good judgment will enable him to discharge ably the manifold duties of superintendent of the City Hospital.

Dr. Ernest Mueller, superintendent-elect of Insane Asylum, will carry with him thither experience of former years, as well as a high degree of medical attainment.

Dr. R. M. Kerley, superintendent of Female Hospital, is a gentleman of long medical practice and experience in this and other cities, and in the discharge of his duties will give satisfaction to patient and the public.

Dr. H. C. Harkins, chief dispensary physician, is one of the brightest young fellows in the city, thoroughly industrious and painstaking, besides, a young man of most excellent moral training.

St. Louis Medical College a Component Part of Washington University.

In 1872, the Faculty of the St. Louis College, looking forward to the needs of the medical student for a more thorough education, organized the Medical Fund Society, a society to hold in trust any fund that might be accumulated and set aside for the distinct purpose of medical education. In order to create this fund they devoted the net earnings of the school to this purpose. The accumulations of this fund in the year 1880 put them in a position to feel that they could, even while competing with colleges whose term was two years enforce a three years' curriculum and withstand the loss of patronage and the loss of income such an advance would entail. The three years' curriculum was made obligatory, and has been maintained in the college ever since that time. The fund remains unimpaired and has increased, although somewhat slowly, since the enforcement of the obligatory three years' course. The good character and the superior qualifications of students graduated under this curriculum has been unquestioned. A better grade of students at once filled the lecture rooms of the college. The recognition of this advance in qualifications and in demands established a feeling of unity between the Washington University and the St. Louis Medical College, and as a result of this feeling and purpose, and for mutual benefit, the two institutions have united their fortunes. The St. Louis Medical College, while still retaining its old name and its faculty, has united with the University and is now the Medical Department of the Washington University. A new building in an eligible location, with facilities for laboratory work, and with a larger sphere of usefulness in both its medical and dental departments, will be the immediate result of the union.

Prof. Joseph Leidy.

Within less than twenty-four hours of each other, the Drs. Leidy, of Philadelphia, one the well known practitioner, and the other a distinguished scientist, have passed away. Prof. Joseph Leidy died April 30, after progressive ill-health for some time. One week previously he was seized with violent pain in the hand; this became complicated with influenza and prostration resulted. The deceased was in his 66th year, was known and honored throughout the world, and was a member of all the prominent societies of his profession. He studied medicine under Prof. Paul B. Goddard, and graduated from the University of Pennsylvania in 1844. In 1846 he relinquished the practice of his profession and became demonstrator of anatomy of the Franklin Medical College. In 1855 he took the chair of anatomy at the University of Pennsylvania, and in 1871 was called to the chair of natural history at Swathmore College. Seven years ago he established the department of biology at the university and was chosen its director. Prof. Leidy contributed over 800 papers on biological subjects, which have been published by the Academy of Natural Sciences, of which he was president, and by the Smithsonian Institute, and under the auspices of the National Government. Harvard College conferred upon him the degree of LL.D. in 1866.—*St. Louis Globe-Democrat.*

Reports From Washington.

Medical Editors.

The annual meeting of the American Association of Medical Editors was held on the evening of the 4th inst. Meeting called to order by Vice-Pres. Dr. Frank Woodbury, of Philadelphia, in the absence of Dr. F. L. Sim, who is confined to his home at Memphis, Tenn., by a serious illness. Among others present were Dr. J. Berrien Lindsley, of Nashville, Tenn.; Dr. Paul Paquin, of Columbia, Mo.; Dr. Jno. E. Kinney, Kansas City; Dr. Wm. Porter, St. Louis, to which body was also elected Dr. Geo. Wiley Broome, the editor of the Review.

Officers-elect for the ensuing year are: President, Dr. Frank Woodbury; Vice-President, Dr. C. H. Hughes, St. Louis; Secretary, Dr. C. C. Culbertson, Cincinnati.

Then followed the discussion of an elaborate banquet, to which forty members of the Association sat down, it being such as medical editors enjoy.

The Review did not lack due representation where, we doubt not, Dr. Broome distinguished himself in all the essential qualities of his official relations.

The American Medical College Association held its second annual meeting also on the evening of the 4th inst. The President, Dr. N. S. Davis, was in the chair, and Dr. P. H. Miller was Secretary. About thirty or forty institutions were represented.

The object of the Association is to elevate the profession, by raising the standard of the curriculums in all the medical colleges, and making the requirements as nearly the same as possible. It is said that some of the colleges in the Association are likely to drop out, as they are opposed to raising the standard, which they claim is impracticable for them. Fossils!

State Boards of Health.

At a meeting held in Washington May 4, of representatives of the "boards" of the several States, the subject proposed for consideration was "What Should State and Local Boards of Health Teach, and What Should They Do to Prevent Consumption?" Dr. P. H. Brace opened the discussion, followed by Dr. N. Bryce, of Toronto, Canada, stating while in the country, cases of the disease numbered one to the thousand, there were two to the thousand in crowded cities; alluded to the fact of the transmission of the germs by cow's milk; the promotion of tuberculosis by over crowding habitations; insufficient food; the proportion of the disease in England among women was greater than among men, on account of the confinement of the former in doors. Nature of occupation, particularly of adults, ventilation, soil and climate entered largely as elements into the cause of the disease, and in parts of England where the sub-soil had been drained the death rate had diminished 50%. Conclusions, phthisis is a contagious disease—must be treated as such; a similar crusade waged against it as against the better recognized diseases, diphtheria, small pox, etc. Curative institutions for consumption should be arranged for a pure life with plenty of out-door exercise.

Dr. Vaughn thought personal susceptibility should be considered as an important element in the propagation of the disease. All persons inhaled the bacilli, yet only a few became affected. The germ was more likely to be transmitted by the spittle and its discharges than by the breath.

Dr. Louis Balch regarded isolation of consumptives in hospitals quite impracticable, though effective.

Dr. C. W. Chancellor, of Maryland, spoke upon the pollution of the waters of the upper Potomac and its causation of typhoid fever in many who partook of them. In Cumberland at one period there were 600 cases of this disease.

Addresses of like sentiment were made by Dr. Bryce, of Toronto; Dr. Metcalf, of New York; Dr. Watson, of New Hampshire; Drs. Reeve and McReynolds, of Wisconsin; Dr. Lee, of Pennsylvania; and Dr. Homan, of Missouri.

It was resolved to appoint a committee to consider the subject and to suggest at the next annual meeting some remedy for the existing state of things.

Indianapolis and New Orleans are in the field as the place of the next annual meeting.

The old officers were re-elected, viz.: Dr. J. W. McCormack, Kentucky, President; Dr. C. O. Probest, Ohio, Secretary; Dr. Henry B. Baker, Michigan, Treasurer.

Upon the subject, "What Recent Developments Have Been Made in Laboratory Work of Practical Value to Health Boards," Dr. Victor C. Vaughan, the discoverer of "Tyrotoxicon" stated in analyzing 119 waters, he had found poison—producing germs in 36. White rats are used for testing the poisonous qualities of the germs.

Germs that would kill a dog or a rabbit would have no effect on a rat, and suggested it might be better to have a few men to experiment on, but subjects were hard to get this purpose.

Dr. Vaughan continued, poisonous germs existed in water, which many people regarded as entirely pure. He had found that the epidemic of typhoid fever of Duluth, where there were more than 1,500 cases, had been due to poisonous germs in the water of Lake Superior. This water had always been regarded as pure, but the analysis at that time showed that it was not, and there was no doubt that the fever epidemic was due entirely to the poisonous germs.

Dr. Vaughan did not believe that typhoid fever was due to any one germ in water, but that there were various germs which would produce this fever. A general discussions of the subject followed.

Drs. L. F. Solomon, of Louisiana, Dr. C. A. Lindsley, of Connecticutt; Dr. C. N. Metcalf, of Indiana; Dr. Jno. H. Rauch, Illinois; and Dr. Walcott, of Massachusetts, were appointed a committee to consider the question of the pollution of streams and the best means of securing the appointment of a river conservancy commission.

It is proposed to effect a permanent organization of the State Boards of Health, constituting a National Board to secure uniformity of practice and the conduct of examinations, etc.

American Academy of Medicine.

This body, representative of the genneral profession of the United States, has spoken: Let all interested give due heed. It is folly to attempt to resist the inevitable. Progress is the watchword and pervades every vocation and every department of industry. That policy, that is so benighted as to adhere to antiquated modes and methods, or that does not heartily unite with that of advancement and elevation, is doomed to prostration and demolition.

The "Academy" has formulated its unqualified sentiment in the following preamble and resolutions, viz.:

Whereas, Like the American Medical College Asso ciation, it is the purpose of the American Academy of Medicine to promote a suitable and thorough education in all persons who choose the practice of the healing art as their life work; therefore we wish to congratulate the members of the association on the success which has already resulted from their efforts, and to support them in their undertakings by the following statements; therefore be it

Resolved, (By the Fellows of the American Academy of Medicine). That medical colleges should require a preliminary examination of students in the branches which constitute a high-school curriculum, including one year's study of the Latin language, unless said matriculates hold diplomas from literary colleges, universities, or State normal schools.

Resolved, That in our opinion the course of study in all our medical colleges should be graded, and extend through not less than three years, of eight months each; that the instruction should not only include practical anatomy and abundant opportunities for clinical study, but a thorough training in chemistry, histology, and pathology.

Resolved, That it is the sense of this academy that there should be in each State a "board of medical examiners, to promote the foregoing conditions in physicians, also to determine whether practitioners in medicine and surgery, as such, are fit to receive the implicit confidence of the public to which their services are offered.

Dr. Charles McIntire, of Pennsylvenia read a paper, it beeing, "An Attempt to determine the ideal preparatory course of studies for the learned profession."

Dr. David S. Jordan, spoke at length upon the subject of "The General Education of the Physician."

Discussions were participated in by Dr. Frederick H. Gewish, Dr. Herdman, Dr. H. O. Marcy, Dr. Leartus Connor, Dr. Giesham H. Hall, Dr. A. L. Tibon, Dr. E. J. James, Dr. Wm. L. Osler, Dr. John B. Lindsley, Dr. J. Charles Morris and Dr. P. D. Keyser.

Dr. Louis H. Steiner of Baltimore, read a paper entitled "Will the shortening of the college curriculum conduce to better preparation for the study of medicine."

Officers elect for ensuing year, are President Dr. Phin. S. Conner, Cincinnati; Vice-Presidents Drs. R. Lawry Sibbett, Carlisle, Pa.; Geo. J. Fisher, Sing-Sing, New York; Henry M. Lyman, Chicago; Louis S. McMurtry, Louisville, Ky. Secretary Dr. Charles S. McIntire, Easton, Pa.; Assistant Secretary Dr. Edgar M. Green, Easton, Pa.; Treasure Dr. J. Chester Morris, Philadelphia. Pa.

After adjournment a banquet was indulged in.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, April 25, 1891, the President, L. Bremer, M.D., in the chair.

Dr. Rumbold made some remarks in regard to his observations in California, respecting the climate, prevalence of nasal catarrh and results of treatment.

Dr. Prewitt presented a pathological specimen, and said: The patient, from whom this specimen was taken, is still living, and the case is one of great interest, being that of gangrene from embolism. The patient was an elderly lady, something over 50 years of age, who had been troubled for years with disease of the heart. Two months ago she went to the Rocky mountains to nurse her sick son, which she ought not to have done; he was in a location of high altitude, the worse place in the

world for patients affected with heart disease; her heart trouble was doubtless aggravated by this condition; at any rate, a few weeks ago, an embolus was detatched and, finally, lodged in the popliteal artery, the result of which was gangrene in the foot and leg. The speaker saw her about April 12; the line of demarcation was then pretty well established; the toes were absolutely dead and dry, and the gangrene had extended up the leg upon the fibular side, to within four inches of the joint; on the tibial side it had extended only part way up; a strip of flesh, from the ankle-joint upward, on the tibial side, was still living. The question presented was of amputation. The patient was suffering with more or less fever, and her condition gave rise to the conviction that she would not survive delay and the simple sloughing off of the leg; an amputation was, therefore, advised. The question then arose as to the indicated site of the amputation. Had the gangrene been uniform up the leg a simple detachment of the dead tissue might have been made; but this could not be done, because one-half the leg was dead, and the other half living; and to await the entire detatchment might have cost her her life; so disarticulation at the knee-joint was determined upon, by which rather a short flap on the fibial side could be utilized, but a still longer one on the tibial. The apprehension still remained the flaps might not survive. The exact site of the embolus could not be determined; and the singular characteristic that fissues of one side of the leg were sound, and those of the other necrosed, rather complicated than facilitated the diagnosis; it was my opinion, however, that the popliteal artery was plugged above the bifurcation. Relying upon the survival of the flaps, the amputation was made as stated, abundant flaps for covering the stump were secured, and when completed the stump presented a very excellent appearance. It is a source of regret that there is some tendency to sloughing of the flaps on the fibular side for a space as large as a dollar. How far it may extend cannot be predicted. The amputation was performed on the 16th of the month, nine days since. The general condition of the patient is decidly better than before the amputation. In completing the operation the popliteal artery was severed at the precise site of the embolus, an inch or more of the artery with the embolus in it being removed. It was a thrombus; a clot in the artery at the point, where the artery was severed, presented a distinct white fibrinous mass, which was entrusted to a young man with directions to preserve, which unfortunately, he failed to do.

Dr. Edward Borck.—Every case has points of interest, so has this; gangrene is produced in several ways. Thrombosis and embolism are produced in several ways; by injuries, or from senile causes; this patient was over 50 years of age.

The gentleman states the patient had heart disease. Will the doctor please explain by what form of heart disease or in what way the embolism was formed.

Dr. Fairbrother said.—Dr. Prewitt found the embolism, and, therefore, knows it was there; but whether it proceeded from the heart or not might be the question. The particular relation of the general subject of heart disease, and this kind of embolism is not very clear. It is easy to understand how such a condition of gangrene could have occurred from such a degenerated condition of the arteries as to seriously obstruct the circulation. A case of embolism occurred to the speaker in the popliteal artery, above the bifurcation, in the person of a large elderly gentleman, who met with a dislocation of the tibia backward; it was reduced and seemed to be in good condition; but failing to discover circulation in the leg, embolism was suspected. Amputation was later performed, but the patient died. Had the operation been performed earlier, the patient probably would have recovered. Arterial emboli, in several cases, from injury, had fallen under his notice, but he remembered none from any of the different forms of heart affection. A case of probable embolism occurred in a young lady who had phlebitis, ushered in with severe pain in the posterior portion of the leg and tenderness, and the usual sympsoms of inflammatory action. The pain, as is usual in acute attacks of phlebitis, was very intense. Being called in haste one morning to see her, death had occurred before my arrival. Statements were made that she had been doing fairly well until that morning, when she was suddenly seized with a violent pain in the region of the heart, with difficult breathing, then apparent suffocation, followed by death. The approximate cause of which was attributed to embolism, an event of frequent occurrence in phlebitis.

Dr. William Porter observed.—Dr. Prewitt stated that the altitude was the very worse condition possible for a patient affected with heart disease. This was said parenthetically, however, but it recalled to my mind the experience of a number of physicians who have concluded (and their conclusions are doubtless right), that mountain altitude, with corresponding temperature, is not the worst, but in some cases of heart disease, the best agency for the patient. Possibly a patient with such a disease as that of Dr. Prewitt's case would not be benefited by high altitudes. In cases of valvular lesion, disease of the mitral orifice, for instance, compensatory hypertrophy insures relief; and anything, that will safely promote that hypertrophy, is remedial in its nature; therefore, it is claimed that certain patients with heart disease, and in whom we may expect a certain amount of muscular development, who are still young, should be sent to mountainous regions. They are instructed to climb the mountains in a moderate way; increasing the distance and exertion until they find they have reached their limit. English physicians are now in the habit of sending their patients to the Alps. The speaker said he had repeatedly sent patients to Colorado, directing them to commence carefully, possibly for a few weeks, taking no exercise in the way of climbing, allowing the stimulating action of the rarified air to stimulate the heart, and, thereby, acting as an agent in promoting hypertrophy; but after a while

encouraging them to climb the mountains; going about slowly at first, and afterward more rapidly. These hygienic agencies had achieved better results in several cases, than if they had remained at home and taken mild exercise, with the use of digitalis and such heart tonics as are ordinarily administered.

Dr. Meisenbach said.—Members of the society who have visited the watering places abroad, Baden-Baden, Carlsbad, etc., and climbed the mountains, may have noticed signs, in red, green, blue and other colors; these signs have a special meaning; they indicate the limit which the patients, suffering with weak hearts, shall reach. The physician directs his patient to walk a certain distance to-day, and such a distance to morrow and so on; so that the theory formerly entertained in regard to high altitude in its effect upon weak hearts, and heart disease, does not now seem to be sustained. Whereas, formerly the patient was directed to keep quiet; the regimen now is for the patient to move about and climb, so as to get the muscular system in a better condition. The speaker thought the case presented was one of senile gangrene, and the precise condition of the vessels, that produced it, can only be determined by a microscopical examination.

As to the point of amputation, in cases of senile gangrene: It seems the first indication of breaking down of the tissues in this case was at and about the great toe; showing that the vessels at that region were at fault. Gentlemen, who have had similar cases in charge, have learned by experience that amputation below the bifurcation of the artery, is ordinarily futile, from the fact, that ordinarily, the embolus is not confined to that portion of the leg necrosed, but extends up further—it goes up into the popliteal space, and is found even higher up than Dr. Prewitt found it. The condition of the flaps presented in this case, at the present time—showing a tendency to slough—tends to prove, that the embolus may extend still further up than the doctor surmised. Hahn and Pfister, in similar cases, amputate above the knee. The speaker witnessed several amputations by Pfister, and he stated positively, that he thought; it necessary in such cases to amputate above the knee, in order to save the life of the patient, and above the point of bifurcation of the arteries of the leg. As for himself he had no personal experience in senile gangrene. He also witnessed amputations in several cases by Hahn, who takes the same view as Pfister in regard to the point of selection. In cases of acute gangrene due to injury, the selection of the proper point for amputation is all important; the question of waiting for a line of demarcation is still an open one. The books lay down the rule that it is always well to wait for this line to appear; while some surgeons take the view that delay is not advisable, especially in acute obstruction of the vessels; for the delay, till this takes place, often places the life of the patient in jeopardy; allowing the opportunity for the system to become thoroughly infected with septic material. A patient once presented himself, who had shot himself in both arms with a charge of buckshot, and the lower arm was completely destroyed; the circulation being interrupted, gangrene set in, and spread very rapidly above the elbow, and began to travel up into the axillary space; the man had high fever and all the symptoms of gangrene. Being satisfied that it was unsafe to wait for a line of demarcation to appear, the speaker amputated the arm; and the patient made an excellent and uninterrupted recovery. Therefore reading, observation, and this experience justify the statement that after injury, it is not always safe to wait for a line of demarcation to appear.

Dr. Prewitt rejoined.—Dr. Meisenbach speaks of traumatic gangrene, a condition totally different from that presented. In cases such as he has descanted upon it is doubtless unwise to wait, until a line of demarcation forms; because the line of demarcation may never form; for the gangrene spreading rapidly from the injured limb invades more vital parts, and the patient dies. The only mode of saving the patient's life, is by an early amputation, anticipate the progress of the lethal cause. Cases of embolism differ from those of senile gangrene. Dr. Meisenbach evidently regards this as a case of senile gangrene, simply because the gangrene commenced in the most palpable manner at the toes. The speaker said he did not see the patient at the outset of the disease, and did not know that it commenced at the big toe; the toes certainly manifest the most marked condition of drying up of the tissues. Dr. Steer was in attendance upon the case; had attended the family for years, and made the diagnosis of embolism.

This was made five weeks before the speaker saw the patient. There was a very marked, sudden sharp and stinging pain at the point of injury, with interference of the circulation at that point. Those are not the symptoms of senile gangrene.

Respecting the line of demarcation in these cases, it is the rule, certainly, in a case of senile gangrene to wait till this is formed; we would not amputate above the knee, in cases in which the trouble commenced simply in the big toe. A single toe, 2, 3, 4 or 5 toes may become gangrenous and stop at that point; or the gangrenous process may stop below the ankle; we would then certainly wait for the line of demarcation to become established. So, too, in embolism, we do not know exactly how much of the leg would die.

In this case the inference was that the embolus was lodged in the popliteal artery, and the history of the case certainly sustains that position.

Dr. Bremer asked Dr. Prewitt, how he accounted for the fact, that the tibial side was in comparatively good condition, and the fibular necrosed, when the embolus, as he states, was situated above the bifurcation?

Dr. Prewitt.—It seemed to be above the bifurcation?

Dr. Bremer.—Was it not rather strange that one side should be tolerably well preserved?

Dr. Prewitt.—That was a little puzzling. I do not exactly, understand why it should have been so.

Dr. Bremer said.—As to the influence of high altitudes and mountain climbing on heart lesions, Carlsbad cannot be compared to the Rocky Mountains. The lowest point in the Rocky mountains to which people ordinarily resort, Colorado for instance, is five thousand feet above the level of the sea; that altitude is much higher, of course, than Carlsbad. What in Germany is called terrain-cure, as understood by Prof. Oertel, of Munich, is based on an entirely different principle from rarified air, as influencing the heart's action in such countries, for instance, as Colorado. The main principle on these terrain-cures is, that an individual suffering from certain kinds of heart disease, is instructed to climb by degrees to certain heights, with the view of thereby gradually strengthening the action of the heart. As Dr. Meisenbach stated, there are at different elevations signs of different colors; the patient is told to go to a certain point one day; and the next day to another, a little higher; and in this manner systematically the heart is educated up to the performance of certain work. There are especial cases of weak heart, which result from obesity; where the intra-cardial connective tissue is developing into fat, and the fat interferes with the heart's action. Here the terrain-cures reduce the amount of fat, and at the same time strengthen, the heart's muscle at the expense of the fat. But in a case like this, where the woman was suddenly transferred to an altitude of about nine thousand feet and more, it is quite a different matter. Any man, who suddenly goes to such an altitude, will most certainly experience difficulty in respiration, and disturbance of the heart's action. The speaker had himself experienced it, and had seen it in the members of the company with whom he made a trip to Leadville, and to still higher places. People naturally have a quicker heart's beat in such altitudes or even of six thousand or seven thousand feet, and it stands to reason that persons with heart disease run more risk of acquiring this or that complication.

Now as to the manner of the production of embolus. We must presume that it is a valvular lesion of the heart. This is under all circumstances the result of an inflammatory process; this inflammatory process is always the result of bacterial action, and very frequently bacteria can be still demonstrated in the substance of the warty condition of the valve; they may be called into activity by injurious influences, either of climatic character, or by indiscretion in diet or great fatigue, as in all pobability was the case with this woman. Then we have what is ordinarily called a fibrinous deposit—that is to say the result of a revived fresh inflammation. This fibrinous deposit, after it has attained a lesser or greater size, may be detached, enters the circulation, and produces the result such as we have here. It may require weeks to develop it. The speaker thought this was a case of embolus.

The probablity is that the occlusion was not complete at first, and that a certain amount of blood continued to pass by the embolus; that a fibular bifurcation of the artery first and principally took place, and afterward, in consequence of the irritation of the embolus as a foreign body, a thrombus developed which made a complete occlusion of the popliteal artery. Owing to the fact that on the tibial side the tissues were in a pretty good state of preservation, it was probably on the fibular side that the embolism had its origin.

Dr. Broome inquired.—If the embolus was liberated from the valves of the heart, in the manner you have just described, would you judge it to be a septic embolus—is it your judgment that this was a case of septic gangrene?

Dr. Bremer.—I do not believe that it was a septic embolus, in the proper sense of the word.

Dr. Broome.—How could it be otherwise and be developed in the manner just described?

Dr. Bremer.—In inflammatory conditions of the heart we must always distinguish between the well known form of malignant endocarditis, which is a destructive process, and other forms of endocarditis, which simply produce deformation of the valves, and which are not so virulent in character, and have a different microbe for its origin. In the former there is the staphylococcus pyogenus aureus—it is essentially a suppurative process; but in the other forms, traumatic for instance, we have the pneumococcus, and the pneumococcus is of the fibrine producing origin; it is on this account that, as in the lungs, we have fibrinous exudation, because the micro-organism which produces the lesion is a fibrine-producing organism, such as is found in pneumonia. It is by no means as virulent, as the staphylococcus pyogenes aureus. It is for this reason, also, that it has been maintained that rheumatism is an infections disease, and that the germ of the disease is the pneumococcus. From this fact the deduction has been made by some bacteriologists, that whereas, the fibrinous deposit occurs in the rheumatic heart, and the pneumococcus is a fibrine producer, therefore rheumatism is a pneumococcus affection. This has not been proved, but in a great many cases has been demonstrated in lesions of the heart.

Dr. Prewitt inquired.—Is not a septic embolism always of venous origin, from a broken up thrombus, a disintegrated venous thrombus, that produces the septic embolism?

Dr. Bremer.—Whenever there is a destructive or malignant endocarditis, due to staphylococcus and located solely in the heart, we have no right to say that it is of venous origin. It certainly may be, but the speaker did not believe that it always is. It is a very difficult matter to comprehend how it happens that in the absence of any pus production in the body, there should be a destruction by a purulent process of the valves. Inject a pure culture of very active staphylococcus into the left heart, for instance, there will yet be action. There may be no destruction or suppuration of the valves. It has been thought that the valves formed a favorite object for the attack of these micro-organisms, because they have a chance of settling there;

there is a kind of eddy at the valves, where perhaps some amount of blood will stagnate in the valves; the blood current does not always wash away the micro organisms. But this is merely a theory. It has been proven by experiment, that whenever the valves are injured, for instance, by the introduction of a sound, and the valves slightly scraped, or if the endothelium of the heart be removed, and then an introduction of the staphylococci be made, then there will result a destructive, malignant endocarditis. A lesion must first exist in order that the micro-organisms may act. Is this a case of senile gangrene?

Dr. Meisenbach replied he certainly so regarded it. It has become usual to amputate above the bifurcation of the artery in the leg. We can not tell how far the gangrene may extend. It may involve the entire course of the fibular artery.

Dr. Porter wished to propound two interrogatories: 1st, would not the conclusion arrived at by scientists, that rheumatism may be due to the pneumococcus, lead us to expect more frequently the co-existence of pneumonia and rheumatism; 2d, may not the rapid heart's action, that is directly the result of elevation, in itself be remedial in these cases of heart disease, provided it be not excessive. Thus a patient with cardiac lesion, who has accomplished a graduated amount of exertion, may be benefited by the compensatory hypertrophy that would occur in consequence of the exercise. Of course this would have to be in cases which have not progressed to a very great degree.

Dr. Bremer responded.—The two conditions requisite for the production of pneumonia and rheumatism are wet and cold, this is recognized the world over; they are both now called refrigeration diseases. Now the efficient causes, which in one person produce pneumonia, in another person would produce rheumatism, with the help of the same organism. Some patients are predisposed to pneumonia, and others to rheumatism; every practitioner knows that. In some cases the favorite point of attack is the lung, and in others the joints. The same is true also in other infective diseases; for instance in erysipelas. Why is it that in some individuals the skin is attacked, and in others the internal organs, as there certainly is such a thing as internal erysipelas. These questions, of course, can not be answered, and the fact that rheumatism and pneumonia are not more frequently associated than they in reality are, does not militate against their common bacterial origin. In regard to the second inquiry of Dr. Porter, the great drawback in high altitudes with persons suffering from heart disease is the rarifaction of the air, which means that it contains a smaller supply of oxygen. We know very well that the oxygen is in greatest abundance where there is the greatest atmospheric pressure. In the caisson, for instance, you could not extinguish a match or candle; it would light up again, showing that there is an atmospheric pressure.

Physicians and other readers of the Review should not fail to examine its advertising pages, where much that may prove of interest will be found.

SOCIETY NEWS.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

Missouri State Medical Association, Excelsior Springs, May 19, 20 and 21.

Indiana State Medical Society, Indianapolis, May 13, 14 and 15.

Kansas Medical Society, Wichita, May 13, 14, 15 and 16.

Illinois State Medical Society, Springfield, May 19, 20 and 21.

West Virginia State Medical Society, Fairmount, May 20, 21 and 22.

North Carolina State Medical Society, Asheville, May 26, 27 and 28.

Connecticut Medical Society, Hartford, May 27, 28 and 29.

Pennsylvania State Medical Society, Reading, June 2, 3, 4 and 5.

State Medical Society of Wisconsin, Madison, June 3, 4 and 5.

Delaware State Medical Society, Rehoboth, June 9 and 10.

Maine Medical Association, Portland, June 9, 10 and 11.

Massachusetts Medical Society, Boston, June 9 and 10

South Dakota State Medical Society, Chamberlin, June 10, 11 and 12.

Rhode Island Medical Society, Providence, June 11 and 12.

Michigan State Medical Society, Saginaw, June 11 and 12.

New Hampshire Medical Society (centennial), Concord, June 15 and 16.

Colorado State Medical Society, Denver, June 16 and 17.

Ohio State Medical Society, Put-in Bay, June 17, 18 and 19.

Minnesota State Medical Society, Minneapolis, June 18, 19 and 20.

Medical Society of New Jersey, Long Branch, June 23 and 24.

LINTON DISTRICT MEDICAL SOCIETY.

This Society will hold its regular meeting at Columbia, commencing at 3 p. m. on the 11th inst., and continue in session on the 12th. It is hoped there will be a large attendance. An attractine programme, as far as reported, is announced. Among those presenting papers are Drs. A. W. McAlester, O. Z. Paquin and W. L. Lenoir, of Columbia; Dr. Pinckney French, of St. Louis; Dr. E. S. Cave, of Mexico; Dr. R. S. Wilson, Fulton, and many others. Dr. Woodson Moss, of Columbia, just returned from Berlin, will present for inspection specimen of the genuine "Tuberculin," with Koch's ideas and mode of treating tuberculosis.

President, Dr. M. Yates; Treasurer, W. V. Walker; Secretary, C. B. Simcoe.

ST. LOUIS MEDICAL SOCIETY.

The meeting of St. Louis Medical Society on May 2 was numerously attended, there being seventy members present. On account of the sad accident to his son, the President, Dr. Bremer, being absent, the Nestor of St. Louis Surgery, Dr. Gregory, was called to the chair. Dr. McPheeters offered the following resolutions which were heartily adopted:

Resolved, That the St. Louis Medical Society heartily approve of the efforts which our State Board of Health are making to raise the standard of Medical education in Missouri, and to prevent our State from becoming the dumping ground for all the poorly qualified practitioners of medicine, who fail to obtain permission to practice in neighboring States on account of these incompetencies; and

Resolved, To the end that the medical colleges of this State may be in a position to assume the aggressive in the good work of reform and progress now so imperatively demanded by the profession, the Society earnestly urges them all to adopt the three years' graduated courses of instruction, of eight months each, with a reasonable amount of preliminary education as a prerequisite for graduation.

Only one voice was heard in opposition to the requirement of a three years' course of lectures as a prerequisite for graduation.

MISSOURI MEDICAL ASSOCIATION.

We are informed that the different railroads of the State, in appreciation of the medical profession, and of the benefits that may accrue to its members by a general convocation for conference, for imparting and receiving information on medical subjects, have again responded to the solicitation for reduction of fares, and have authorized the sale of tickets to the ensuing meeting at "Excelsior Springs" on May 19, at one and one-third fare for the round trip. The "Springs" can be readily reached from Kansas City and by the several roads from the East; but the Wabash (West) from St. Louis intersects at Birmingham with the Chicago, Milwaukee & St. Paul Railroad; from which station omnibuses convey passengers to the "Springs." Officers: Dr. A. B. Sloan, Kansas City, President; Dr. J. C. Mulhall, St. Louis, Rec. Secretary; Dr. C. A. Thompson, Jefferson City, Treasurer.

TEXAS MEDICAL ASSOCIATION.

This Association has just closed (April 30) its annual session, at which a goodly number of physicians were present. We have seen in the journals some of the papers contributed by its constituency, and for original thought, faithful investigation and literary and scientific expression will compare favorably with those of any State. The zeal and activity of this Association are worthy of imitation.

The officers for the ensuing year are President, Dr. Wilkes, of Waco; First Vice-President, Dr. P. C. Coleman, of Colorado City; Second Vice-President, Dr. W. L. Rogers, of Temple; Third Vice-President, Dr. B. H. Baughn, of Hill County; Secretary, Dr. H. A. West, of Galveston. Judicial Council, Drs. J. D. Burch, of Aurora; J. C. Loggins, of Ennis; C. B. Hudson, of Alvarado, and O. Q. Halbert, of Waco.

MISSOURI DENTAL ASSOCIATION.

The twenty-seventh annual meeting of the Missouri State Dental Association will be held at Louisiana, Mo., July 7, 8, 9 and 10, 1891. Two half days will be devoted to clinics, Wednesday and Thursday. Those having new specimens, models, new appliances and methods should notify the committee in order that proper mention of same can be made on the programme.

Wm. Conrad,
G. W. Whipple,
Henry Fisher,
} Executive Committee.

THE ROYAL SOCIETY OF CANADA.

The next regular annual meeting of the Royal Society of Canada will take place at Montreal. The session will open Wednesday, May 27, and continue for one week.

Delegates to Washington —The following are the gentlemen, appointed by the St. Louis Medical Society, to whom certificates have been issued, viz.. Y. H. Bond, G. W. Broome, N. B. Carson, H. C. Dalton, G. J. Engelman, N. Guhman, R. M. Jordan, I. N. Love, J. C. Mulhall, H. Newland, F. J. Lutz, W. A. McCandless, Wm. Porter, A. V. L. Brokaw, E. H. Gregory, Jr., W. J. Langan, L. Bremer, J. H. McIntyre, H. Tuholske, C. H. Hughes, J. M. Scott, A. S. Barnes, Edw. Borck, A. Fulton, T. F. Prewitt, R. J. Stoffel, Jno. W. Vaughn, J. W. Moore and Waldo Briggs.

A Mixture for Dissolving Diphtheritic Membranes.—Caldwell recommends the following solution for this purpose:

℞ Papain, - - - - - ʒijss.
Hydronaphthol, - - - grs. ij.
Hydrochloric acid, - - drops, xv.
Distilled water, - - - - ℥iij.
Glycerin, - - - - ʒij.—M.

This is to be applied to the affected parts by means of an atomizer every half hour.

SELECTIONS.

OPERATIVE PROCEDURES IN ACUTE GENERAL SUPPURATIVE PERITONITIS.

BY W. E. B. DAVIS, M.D., BIRMINGHAM, ALA.

Surgeon to Birmingham Hospital of United Charities; Secretary to the Southern Surgical and Gynæcological Association; Fellow of the American Association of Obstetricians and Gynæcologists; Member of the Jefferson County (Birmingham) Board of Medical Examiners; Secretary of the Surgical Section of the American Medical Association, etc.

Read by invitation before the Medical Society of the State of New York at its eighty-fifty annual meeting.

That there may be no confusion over the term septic and suppurative peritonitis as used in this paper, it may be well to state that it is conceived that their ætiology is the same, and that every septic peritonitis would become suppurative if time permitted, for both are due to the same microbe. Many cases of septic peritonitis are cut short by the power of organism to take up the germs and destroy them. In other cases the infection is so profound that death is produced in a few hours from toxæmia, before there has been any collection of fluid in the peritoneal cavity; still others die from hæmorrhagic peritonitis in from twelve to forty-eight or even seventy-two hours, before the fluid has become purulent; but when life is prolonged till after seventy-two hours, and sometimes after forty-eight hours, the fluid in the cavity will be purulent. In the language of Senn, (*Principles of Surgery*), "In the septic variety death results before the pus microbes have had time to produce their specific pathogenic effect on the histological elements which are destined to become converted into pus-corpuscles."

When quarts and gallons of pus are reported as having been removed from the general peritoneal cavity and recovery followed, I believe that the pus has usually resulted from a local collection which has ruptured into the general cavity, and the operation has been done before sufficient time had elapsed for this amount of pus to result from the septic inflammatory process in the general cavity. It is easy to understand how a gallon of pus, which has been shut off from the general cavity by inflammatory exudations and adhesions, and which has only recently ruptured into the peritoneal cavity, can be removed and recovery follow; and it is not difficult to comprehend how this condition might be mistaken for acute general suppurative peritonitis, with a gallon or a quart of pus as a result in the cavity, as the pus, by its irritating properties, will produce an inflammation which would be misleading; but the condition is quite different from what would be had if the pus had been the result of a general inflammation. True, there would be many grave symptoms, but not that extensive local inflammation and fatal toxæmia which would result from a peritonitis which had existed long enough to give rise to so large a quantity of free pus in the cavity.

Pathological and clinical study, combined with bacteriological and experimental research, has demonstrated conclusively, that by the time a general peritonitis has become purulent, there have resulted such destructive local effects and so profound a general infection that the condition must be considered fatal.

The physiological and pathological peculiarities of the peritoneal sac in comparison with other serous cavities, as stated by Hadra ("Transactions of the Southern Surgical and Gynæcological Association, 1889"), will explain this rapidly fatal result, as "there is a greater power of resorption, and likewise of secretion and transudation, in the former, which is not only due to the large area of surface, but also to the force under which the fluid contents are pressed into the lymphatic system by the respiratory movements of the diaphragm and also by intestinal peristalsis." Therefore, with such a system of resorption, there should be no surprise that our patients often die from septic peritonitis in a few hours, and long before the peritoneal fluid has become purulent

Those who have much experience with septic peritonitis can appreciate the statement of Hutchison, that "it is almost impossible to exaggerate our conception of the wild-fire rapidity with which inflammation of the serous membranes may extend whenever an adequate cause has been supplied"—the most important fact to remember in the treatment. Experiments on animals and the many cases of peritonitis in the human subject which I have been permitted to see, 12, 15, 20, 36, 48 and 72 hours after inception of the disease, leaves no doubt on this point. I will refer briefly to only a few cases.

At the Birmingham Charity Hospital I operated 12 hours after a stab of the abdomen which perforated the bowel in four places. Peritonitis had involved one half of the cavity, the side on which the injury was received. The intestines were very much inflamed and tympanitic.

Some months ago I saw a case with my brother, in which he opened the abdomen 15 hours after the man had been shot. There had been considerable escape of the fæces into the cavity, and peritonitis was quite extensive.

In 1889 I saw, with Dr. Wyman, at the Charity Hospital, a man who had been shot in the abdomen about 20 hours previously. He was moribund and we did not operate. He died 4 hours after I saw him—24 hours after the injury—and the autopsy revealed a general hæmorrhagic peritonitis.

During the same year I assisted Dr. Wilson, at the Jefferson County Hospital, in an operation for gunshot wound of the abdomen 48 hours after the injury, and there was a very intense hæmorrhagic peritonitis which involved all the abdominal viscera.

If these cases teach anything, it is that delay in operation in perforating wounds of the intestines will allow a septic peritonitis to develop which can not be relieved by surgery, and that to wait for symptoms in penetrat-

ing wounds of the abdomen is to wait for diffused septic peritonitis—which is death.

I could report many cases of peritonitis from perforation of the bowels; or from the emptying of the contents of an abscess into the cavity, or from perforation of the appendix, and from other causes to illustrate its rapid development and fatal termination, but this is not necessary, even though the length of this paper would permit of it, for the experiments of Pawlowsky, Grawitz, Wegner and others, who have made acute septic peritonitis the subject of very careful study, leave but little to be added in that direction.

Another and very important cause of septic peritonitis is a very simple inflammation which by producing inflammation of the intestinal wall, renders it permeable to pathological micro-organisms, "which are always present in the intestinal canal," ("Intestinal Surgery," Senn,) and which pass through the weakened intestinal walls into the peritoneal cavity and cause death from septic peritonitis. This is well illustrated in cases of obstruction of the bowel when the violent peristalsis on the proximal side of the occlusion results in an intense venous engorgment, with transudation and exudation into the perivascular tissues, and explains why the mortality in late operations for obstruction is always so high. Hence, in diffuse septic peritonitis there is a double source of infection—the one from the general cavity, and the other from septic germs which pass through the walls of the intestines, owing to the pathological conditions produced in the tissues of the bowel from inflammation. Therefore, it is not sufficient to remove the source of infection from the cavity, but, if possible, the contents of the intestines, in order to get rid of gas and fluids which contain septic germs, and relieve the distended, paralyzed guts, which give rise to grave pressure symptoms—symptoms which often resemble obstruction of the bowel from mechanical causes, but which are due to dynamic disturbances.

It is often very difficult to make a diagnosis of general peritonitis, for in the majority of cases it is a secondary disease, and is greatly modified in its symptoms by the original trouble. The symptoms may be almost completely veiled by other grave conditions. The change in symptoms from a perityphlitic abscess, or a puerperal purulent pelvic peritonitis, is often gradual and not very pronounced. But of all the difficulties, the free use of opium furnishes the greatest—all symptoms are masked, and the physician and family led to believe the patient better and the condition not serious.

Of all the local symptoms pain comes first. It is nearly always present, and it is the severe excruciating pain which first attracts attention. When the pain is local at the beginning it is of very great diagnostic value as to the cause of the inflammation. Pain, however, is not always present, and I have seen the gravest cases lying comfortable—cases in which the infection was most profound; but where there is present, in connection with pain, rigidity of the abdominal walls, distention of the abdomen and general tenderness, vomiting and eructation of gases, with marked constitutional symptoms—rapid thready pulse, some elevation of the temperature, etc.—there can be little doubt of the existence of general peritonitis; and if there is no recognizable cause, free purgation will, as a rule, show whether it is simple or septic.

I have often seen cases where the diagnosis could not be made with any reasonable degree of certainty because morphine had been given freely, and there was no evidence that the peritonitis was not a simple inflammation. These cases are so frequent that too much stress cannot be laid on the importance of withholding opium until after a diagnosis has been made. Only recently I saw a very sad case of this kind in the family of one of our most prominent physicians.

I was sent for 36 hours after a girl, æt 18, had been taken with pain in the abdomen, which had been pretty well controlled by morphine. Her pulse was 120, temperature 102.5°, and there was some rigidity of the abdominal muscles, with general tenderness. She evidently had peritonitis, but I could not say that it was septic, and advised the use of calomel in large doses, and enemata of glycerin and salts, and directed the attending physician to let me know in 12 hours the result of the treatment, that an operation might be done if there was not very marked improvement. I received no message that night, but on the following morning I found a note saying that she had been purged and was better; this was Wednesday morning. On Thursday morning I received a similar message, but in the evening I was sent for and found her suffering great pain, with a temperature of 104°, pulse 140, and in a dying condition. There was no doubt then about the diagnosis, but an operation could not have offered any chance of recovery, and while the half dozen physicians present urged me to operate, the mother of the girl was opposed to it unless we could offer more hope of saving her. An autopsy could not be had; but the attending physician informed me that a large quantity of pus came out through the undertaker's trocar.

On a close examination of the physician on my last visit I found that the improvement had never been so much as I had been led to believe, and that the tympanites, tenderness and rigidity of the muscles had never disappeared. Had I seen the case 12 hours after my first visit I should have advised an operation. If morphine had been withheld in this case and salines given instead, the diagnosis would have been made early and the patient in all probability saved.

Of course, cases of simple peritonitis will get well without treatment, and opium may relieve pain, but it always subjects the patient to the danger of septic inflammation and to obstruction of the bowels from adhesions, and too, in many cases, destroys every single vestige of chance for the patient, as the diagnosis will thus be obscured and an operation not resorted to in time.

In the beginning of a general peritonitis, when the bowels are tympanitic, I begin by giving a tablespoonful

of salts in half a glass of water and direct that the dose be repeated every hour until the patient is freely purged. This treatment is especially indicated in the threatened peritonitis we so often meet after laparotomies. I have seen symptoms of a beginning peritonitis cut short by the administration of a few concentrated doses of salts or of calomel in from one to three-grain doses hourly. As has been stated the purgative treatment of peritonitis frequently proves a very valuable diagnostic measure. If it does not succeed, we know that an operation is generally indicated. I have seen this treatment succeed a number of times when I was confident that a laparotomy would be necessary. It is very important not to resort to the free use of morphine unless an operation has already been decided on.

In acute septic peritonitis, as met with in childbed fever or after perforation of the bowels, or from the emptying of the contents of an abscess into the cavity, or after operative procedures, or accidental traumatism, such as gunshot wounds, stabs, etc., nothing short of an abdominal section can afford any chance of recovery, and this will not offer much prospect unless done very early.

Dr. Price, Dr. Wylie and others, in this country, have taken a decided stand for early operative interference in this class of cases. Montgomery ("Transactions of the American Association of Obstetricians and Gynæcologists, 1888) says laparotomy is especially indicated by advanced tympanites and effusion. Barwell contented himself with washing and sponging out the cavity in a case of suppurative peritonitis without drainage; Treves, Truc, Price, and the majority of operators favor drainage and irrigation as conditions require. In perforated peritonitis Escher and Truc would limit the performance of laparotomy to the cases of traumatic origin, as "the adhesive inflammation cannot be relied upon to limit the escape of the contents of the viscus." As the patient is healthy and the tissues in good condition, they think in these cases an operation not only possible, but advisable. But they think that "in pathological conditions the adhesive inflammation can render more valuable service, as the patient is usually too exhausted from disease to stand a protracted operation, and as the softened condition of the tissues gives no guarantee of a closure." Hence, they would not operate in perforation due to typhoid, dysenteric and tubercular ulcers. Mears says: ("Transactions of the American Surgical Association, 1888): Surgical interference is not justifiable and should not be instituted in cases of typhoid fever in which the perforation occurs when the infective process is at its height. In mild cases of the disease in which the pyrexia has not been of high grade and in which the perforation occurs at the end of the third week or later, when the stage of convalescence is fully pronounced, laparotomy may be performed."

There is no want of results to show that operations, when done early, are of benefit, but, on the contrary, late operations are universally fatal, for, as Hadra has said, "well developed acute septic peritonitis, as a rule, may be considered fatal, with or without surgical interference." In view of the fatality of the disease he advocated "open treatment" ("Transactions of the Southern Surgical and Gynæcological Asssociation, 1889) a full exposure of the abdominal cavity, which should be maintained until the danger has passed by. * * * As much of the omentum and of the bowels as find no ready room inside should be left resting on the surface." He claims that by this method "the cavity would be sufficiently cleansed and kept dry, the bowels to a great extent excluded, the exchange of poisonous materials diminished, the bowels, peritoneum and all the other involved organs relieved of pressure. * * * Suction by the peritoneal and diaphragmatic lymph organs would at once be greatly counteracted." He says that the irritation of the dressings over the patient's abdominal organs need not be dreaded, as "we possess in the gutta-percha tissue a nearly ideal non-irritative and air and germ tight material."

In the discussion of Dr. Hadra's paper I stated that I would adopt his method in my next case, but after a thorough study of his operation, I was convinced that it would not meet the indications for treatment so completely as the plan which I suggested a year ago at the Alabama Medical Association, and which "will allow of the complete exposure of the abdominal cavity, the removal of the cause of the inflammation, and assist in restoring the functions of the intestines."

The abdomen should be opened in the median line if the seat of the causative trouble can be found; the cause, if found, removed; the cavity thoroughly douched with hot water; all adhesions broken up; and, if tympanitis is not marked, drainage-tubes are introduced, through which the cavity may be washed out as indications require. If the cause be found in the region of the cæcum, the drainage-tubes should be introduced through a second incision in the right iliac fossa.

In those cases in which typmpanites is marked, causing pressure on all the abdominal organs, and thus creating much constitutional trouble, it will require special attention, and upon this point I desire to lay great stress, for this condition is a dangerous one of itself. Not only does the weakened intestinal wall permit of the continued passage of septic germs into the peritoneal cavity and afford constant infection, but it must be remembered that the bowel can not be replaced without great pressure and consequent traumatism, which will often kill in a few hours from shock thus induced. In advanced cases of peritonitis it must always be remembered that the walls of the intestines are rendered inactive by inflammation, and the power of contraction can not be restored until the inflammation is relieved; and hence the bowel will continue tympanitic and the exchange of septic germ kept up, unless this condition is remedied.

Depaul punctured the intestine with a fine hollow needle in cases of tympanitis with dangerous pressure symptoms, and this has been recommended by many of

the leading writers up to this time; even Senn refers to this as a procedure which may be resorted to. This has been tried by me a number of times, and I was never able to see an appreciable decrease in the tympanites, and it is not reasonable to suppose that a paralyzed bowel could expel any quantity of gas through a needle. I have also practiced making incisions into the bowel after eventration, and by pressure attempted to expel the gas, but this does not prove satisfactory.

I consider the best method of relieving a distended, paralyzed gut, full of poisonous gas is to fill it with hot water, as this will not only free it of tympanitis, but, in getting rid of the gas and fæces, etc., prevents infection. The intestines should not be permitted to escape from the cavity, as their distention will grow greater the longer they are allowed to remain unsupported by the abdominal walls. The tunics being inflamed, the intestines are completely paralyzed and cannot expel their contents when incised on the outside of the abdomen; and, hence, this should be done with the bowels on the inside, that they may be compressed by the abdominal walls. From the time the abdomen is opened a competent assistant should begin to break up adhesions and to direct a strong stream of hot water into all parts of the cavity, while the operator incises the intestine and washes it out. It may be necessary to make more than one opening in the bowel. Before beginning the operation the stomach should be thoroughly washed and the colon freed of its contents.

In those cases where the symptoms resemble obstruction of the bowel from mechanical causes, after the bowel has been emptied and, if possible, washed thoroughly, an artificial anus should be formed. The whole procedure can be accomplished in a remarkably short time.

Recently I operated on a young man 5 days after a perforation of the appendix. His physician tried to relieve him with opium and poultices for 4 days, and then diagnosticated the case to be obstruction of the bowel from invagination. When I was called, the physician had begun to use purgatives and enemas, and thought there was hope of relieving the obstruction by medicine, as the man had passed a small quantity of fæces that day. I expressed the opinion that it was a case of suppurative peritonitis, which would kill with or without operation. As the young man begged for the slightest chance an operation would promise, I opened the abdomen, incised the intestine, and allowed the escape of a large quantity of very offensive fluid and gas. At the same time, the abdominal cavity was freed from a purulent fluid by hot water, which was directed to every portion of the cavity. The incised gut was stitched to the lower angle of the abdominal wound and a drainage-tube introduced through the upper angle. The artificial anus was made in the median line that the recti muscles might aid in retaining the contents of the intestine. The patient died the next day.

There is often an obstruction in the ileo-cæcal region from adhesions produced by the inflammatory process which has caused the peritonitis, and in such cases it may be well to do an anastomosis by uniting the lower part of the ileum with the ascending colon.

In 1889, I adopted this plan in a case of suppurative peritonitis due to the rupture of a perityphlitic abscess, in which there was a compound flexion of the ilium in the ileo-cæcal region from very strong adhesions. The peritonitis was well developed and the tympanites was very great. After the abdominal cavity was thoroughly irrigated and the bowel emptied of its contents, as the patient was holding up well, to avoid the necessity of resorting to the formation of an artificial anus, I requested my brother to do an anastomosis with his catgut mats. The ilium was united with the ascending colon in a very few minutes. Three hours after the operation the patient had a small fæcal action and passed a large quantity of gas. Fourteen hours after the operation he sat up in bed and died suddenly from exhaustion. Necropsy 2 hours after death. Abdominal wound united. Omentum adherent to wound at the points of operation and incision. The anastomosis was perfect and the adhesions extended a little beyond the line of approximation mats.

In the paper read before the Alabama Medical Association a year ago, I recommended that in some cases where the artificial anus was resorted to, the ilium should be flexed and an anastomosis done 8 or 10 inches from the seat of the proposed anus. This was recommended so that it would not be necessary to resort to a subsequent laparotomy in order to cure the artificial anus; for this could be done after the anastomosis without interfering with the flow of the intestinal contents.

Since I read that paper more extended experiments with the operation have taught me that in the cases in which it would be indicated the patient's condition would not permit of any extra time required for its performance, and, hence, it is now my opinion that it will be very, exceptionally indicated.—*N. Y. Med. Jour.*

MEMORY AND CONSCIOUSNESS.

Memory is really a function apart from consciousness, and consciousness is distinct from memory; the two faculties dwell over against each other, but have no necessary connection. If the spinal cord of a frog has been cut in the neck and its brain destroyed, its hind legs are of course separated from the brain in which consciousness exists. If one of its feet now be dipped into a dilute acid, the legs are immediately drawn up. This so-called reflex action is produced by the traveling of irritation from the leg up the nerve to the spinal cord, and the consequent excitement of the ganglionic or nerve cells in the spinal cord, which give rise to an outgoing impulse that travels back along the nerve and causes the muscles to contract. If now a little acid be dropped upon the end of the back, the frog will try to brush it off with the foot handiest to the position. If

this foot be cut off, the animal will endeavor to brush off the irritating acid with the stump, and, failing to reach the part, will remove the irritant with the other foot. There is no consciousness in the frog. If it be put in a vessel of water, the liquid may be gradually brought to the boiling point without any sign of life or feeling being manifested. The brainless frog moves its foot because in successive generations whenever consciousness has recognized the existence of some irritant upon the back, frogs have taken the leg and brushed off the irritant; in this way a habit of action has been formed, and in the fulness of time it has happened that whenever there is a point of irritation upon the back of the frog the leg responds to the irritation in a reflex manner through the spinal cord without the brain of necessity consciously recognizing the irritation. In other words, successive actions have registered themselves in the lower nerve centers, so that a peculiar irritation converts itself into apparently purposive muscular movement without the intervention of consciousness. The little spinal cell, whose power is manifested only in motion, has unconsciously remembered that in time past whenever a certain impulse has reached it from the surface of the body and passed upward to be felt in the brain, it has, in obedience to consciousness, directly sent out certain nervous forces which have produced motion; and as the result of such unconscious recollection on the part of the spinal cell, motion is produced whenever the originating impulse is received by the cell, although consciousness has been abolished. If the section of the nerve centers of the frog be made at such a position that it cuts off only the higher portions of the brain, in which consciousness resides, the frog is converted into an extraordinary automaton. If the foot of the frog be irritated, it moves it out of the way; if the frog be thrown into water, it rushes in blind haste to and fro; if the water be heated, the frog crawls out up the side of the vessel in order to escape. There is every appearance of purposive action. If the frog be placed on the table and its back be gently stroked, there seems to come to it memories of happy courtship hours, spent in swamp or bog, and it breaks forth into the love song, so admirably paraphased by Aristophanes. Yet the frog has not real consciousness.

Memory is, then, entirely apart from consciousness. It is a function of nervous matter to be impressed with its own actions. If a nerve cell has once acted, it has a tendency to act again in a similar manner. If this action has been sufficiently repeated, the memory of it becomes stamped upon the little cell, and that stamp remains and dominates that cell. As a result of the influence exerted upon the cell, there has been formed, so to speak, a mold of that influence, by virtue of which, when the stimulation again comes, the cell reacts as it formerly had done. It is this fact which makes the training of children possible, and it is this that makes the responsibility of training children so terrible. Fixed habits are but the expression of organic form in nerve cells. We see this in disease as well as in health. A child receives a blow upon the head, and, notwithstanding the healing of the cut, there is still irritation of a peripheral nerve by a piece of stone or other foreign bady left in the wound. Epileptiform convulsions result. The surgeon fails to recognize the cause of the trouble, and the convulsions are frequently repeated, until, perhaps, a wiser doctor sees and removes the irritating matter. Yet the convulsions go on. If the operation had been done early the child would have been saved, but it is too late. The nerve cells have had the convulsive stamp impressed upon them, and there is no power given to man to fill up the deep places or plane down the projecting corners of the mold. All persons are conscious and unconsciously molding in their brain cells records innumerable. Things that we reck not of leave their impress there; stamp comes upon stamp like the various writings in an old palimpsest, in which the lower writings seem entirely obliterated until they are revealed by the processes of the antiquarian. So when the vision of the higher centers is sharpest it can see through the maze, and it may, in a moment, decipher the records of a lifetime; or, when the restraining influences of the higher centers have been removed during delirious unconsciousness, muttered words, broken sentences, or clearly spoken periods, and mayhap even acts, give to bystanders glimpses of the passing visions. When we are trying to recollect a thing, we are simply searching here and there among the records in the brain to see if by chance we can find the leaf that we want to read. What an index catalogue is to the searchers in a library, that to the searcher of brain records are the laws of association; and precisely as a purely alphabetical or arbitrary catalogue may assist the student, so may an artificial system of mnemonics assist the brain-delver. The separateness of memory and consciousness is also illustrated by some of the extraordinary phenomena which are connected with the so-called local memories. Among the local or isolated memories the most distinct and sharply cut is the memory for words. The forms of aphasia known as word-blindness and word-deafness are very strange. The sufferer from word-blindness can write and will understand what is said to him; he will talk to you, and perhaps talk you to death; but hand him a book, a newspaper, or even the letter he himself has written, and he cannot read a word. Thus an active man of business having written a letter, giving directions for an important matter, attempted to read it, in order to see if it was correct, but was astounded to find that he could not make out a single word; he had been suddenly stricken with word-blindness. The sounds of the words and the words themselves had remained to him, but the recollection of the written forms of the words was gone. In a case of word-deafness the person can talk and can write, but although his hearing is perfect, he cannot recognize the spoken words. The sound of the voice is plain to his sense, but conveys no thought to him.—Prof. H. C. Wood, *The Century for March.*

LOCALIZATION OF FUNCTION IN THE NERVOUS SYSTEM.

Prof. Victor Horsley and Mr. Gotch (*Croonian Lecture to the Royal Society*, 1891) give a further account of their researches upon the localisation of functions in the mammalian nervous system, as determined by an electrical method. Their experimental procedure has been to expose a particular region of the nervous system (for example, brain cortex) of an etherised cat or monkey for excitation by electrical, chemical, or mechanical stimuli; and to lay bare another part (for example, spinal cord) in which the electromotive changes evoked by the stimulation were recorded by aid of a Thomson's high-resistance reflecting galvanometer or a Lippmann's capillary electrometer. When necessary, any given conduction path was eliminated by section. Amongst the results obtained from observing the electrical changes in the cord induced by excitation of the cortex or corona radiata are:

1. The localisation of cortical areas of representation in relation to the various regions of the cord.

2. Bilaterality of representation in the central nervous system, as shown by the electrical changes in the two halves of the cord, consequent upon excitation of the brain or cord.

By quantitative comparison of the electrical changes (and so indirectly of the nerve impulses) in the spinal cord transmitted as a result of minimal stimuli applied to its fibres, after severance of the cord from the encephalon, the proportionate existence of direct conduction paths in the various columns of the cord was ascertained. The diffusion of the nervous impulses to collateral paths, and probably to centers, produced by increase of the stimulus, was investigated. The high degree in which unilaterality of representation exists in the spinal cord, and the spread of impulses from one posterior column to the other, and from one posterior column to its neighboring lateral column through centers, are some of the general conclusions derived from this part of the research.

From estimation of the electrical variations in the cord evoked by minimal excitation of a mixed nerve or its roots (combined with the elimination method mentioned above) the following result were showns:

1. Complete failure of centripetal impulses to reach the cord by the central end of the anterior root.

2. The mode of conduction, direct and indirect, in the cord of centripetal impulses passing up the posterior root.

3. The localisation of the direct path of afferent impulses in the posterior column of the same side as that of the nerve or root excited.

4. Localisation of the indirect path of afferent impulses in both the posterior columns and the lateral column of the same side as that of the nerve excited.

5. The proportionate development of both systems of paths in the two sides of the cord.

Expressed in percentages of the total transmission, the proportion was found to be: Posterior column of seme side as excited nerve, 60%; lateral column of same side, 20%; posterior column of opposte side, 15%; lateral column of opposite side, 5%. The electrical changes in a mixed nerve, or its roots, caused by excitation of the spinal cord showed:

1. Marked quantitative diminution of impulses emerging from the cord by the anterior roots, whether those impulses originated in the cortex, corona radiata, or lateral column.

2. Localisation of direct transmission of impulses in the posterior column, and passing out of the impulses into the posterior roots of the same side.

3. The proportionate development of the direct and indirect paths in the individual columns of the cord which pass out into the mixed nerve of the one side.

4. Kinæsthesis in the posterior roots when the spinal motor centers are excited by strychnine or electricity.

The chief general principles evolved from their researches are stated by the lecturers in the following terms:

1. Unilateral character of the representation of function in the paths of the central nervous system.

2. The physiological characteristics of the regions of a nerve center: (*a*) the kinæsthetic activity of the afferent region of the center; (*b*) the obstruction offered by the efferent region, including the field of conjunction, to the transmission of impulses through the center.

BACILLUS PYOCYANEUS.

M. G. Gessard (*Annales de l'Institut Pasteur*, Tome v, No. 2, 1891) gives the result of some interesting experiments on the bacillus pyocyaneus. He started with the idea that the color fermentation might depend upon much the same or similar conditions as alcohol fermentations as given by Pasteur. He cultivated the bacillus pyocyaneus in various media, and was able to obtain considerable differences as regards the formation of color. Cultivating what he calls his normal bacillus pyocyaneus in bouillon, he obtained pyocyanin and green fluorescence, this latter alone appearing in cultures on egg albumen, whilst in peptone gelatine media the fluorescence is excluded, pyocyanin predominates, and is accompanied by the formation of a greenish pigment. The addition of glucose to this latter medium prevents the growth of the pyocyanin even, and allows only of the development of the greenish pigment. He found that by suitable methods of cultivation he could obtain more or less permanent varieties of the bacillus, one of which will give pyocyanin alone, another which gives fluorescence alone, and a third which gives neither fluorescence nor pyocyanin. Some of these results were obtained by the use of antiseptics, as in Wasserzug's experiments, whilst he also found that heat exerts a similar action, though not in such a specific manner as do the changes of media, the fluorescence resisting the action of heat to a greater degree than the pyocyanin.

He was unable to obtain the following varieties from his first type: a fluorescent variety by the action of heat upon the "race" type, a similar variety by passing it through a rabbit, a pyocyanic variety by cultivation of the original type on albumen, a variety without pigment by spontaneous degradation of the pyocyanic variety, by the action of the heat on this same variety, by the passage of the pyocyanic variety through a rabbit, and by the action of heat upon the fluorescent variety. He arrives at the following conclusion: the pyocyanic bacillus has two chromogenic functions which he has studied, and a third the study of which he has not yet completed. The first, the pyocyanic, is characteristic of this organism, whilst the second, the fluorescent, is common to this and to several other microbes. Both these colors may be formed when the organism is grown in broth; peptone is more favorable to the pyocyanic, but interferes with the fluorescent function. Albumen is favorable to the fluorescent, but interferes with the pyocyanic function. By continuing the growth on one or other of these media, the pyocyanic or the fluorescent function may be gradually eliminated or confirmed as a variety character. The author insists on the importance of these observations in connection with the modification of the virulence of those organisms, of which it is hoped that protective vaccines may ultimately be prepared.—*British Medical Journal.*

DEATHS UNDER CHLOROFORM.

Hardly a week passes without at least one death being reported as having occurred under chloroform. On March 14, a carman, æt. 28, died whilst under the influence of this anæsthetic in King's College Hospital. According to the evidence given at the inquest, as reported in the public press, the patient had sustained a fracture of the ankle, and the chloroform was administered to permit readjustment of the fragments. The jury returned a verdict of death by misadventure.

Our Sheffield Correspondent writes that a death following the administration of chloroform recently occurred at the Sheffield General Infirmary. The patient was a young girl, æt. 9; an iridectomy had been performed, and it would seem that recovery had to some degree taken place, when sudden heart failure supervened, and efforts to bring about recovery were unavailing. Beyond adherent pleuræ nothing was found at the post-mortem. The jury returned a verdict of syncope after the administration of chloroform. A death during the administration of chloroform has also occurred in the Liverpool Northern Hospital. The patient, a woman of intemperate habits, æt, 49, was admitted with pneumonia of the right base. After a few days she expectorated a quantity of fœtid purulent matter; a localized empyema was detected on the right side, necessitating free drainage, and chloroform was administered, preference being given to this anæsthetic in consideration of the state of the lung. After a few inhalations the breathing suddenly became irregular, and then ceased. Artificial respiration was at once resorted to, and persevered with for three quarters of an hour, but without result. A post mortem examination was made, and the heart was found to be in an advanced state of fatty infiltration. There was a collection of fœtid pus in the right pleura, and the lower part of the lung was gangrenous. The coroner's jury found that death was due to the inhalation of chloroform properly administered.—*British Medical Journal.*

USEFUL FORMULÆ.

Treatment of Fissure Nipples.—

℞ Balsam of Peru,
Tincture of arnica, - - aa ʒss.
Oil sweet almonds, - - - ℥j.
Lime water, - - - ℥ss.
M.: Apply a small quantity several times daily.

Pilocarpine in Glaucoma.—Drs. Saint-Germain and Valude (*L'Union Med.*) recommend the following:

℞ Pilocarpine, - - - - grs. ivss.
Aq. destil., - - - - ʒijss.
M. ft. collyrium.

This collyrium is employed alone, or in alternation with a solution of eserine, in glaucomatous conditions of children, when eserine does not agree with the patient.—*The Prescription.*

Prescription of Chloralamid.—Galiana recommends the following prescription when using chloralamid:

℞ Chloralamid, - - - - grs. xlv.
Dilute hydrochloric acid, - drops, v.
Distilled water, - - - ℥ij.
Syrup of raspberry, - - ʒijss.

One-half of this amount may be given. This may be divided into four doses, one of which may be given every few hours. For rectal injection he recommends:

℞ Chloralamid, - - - grs. xxx.
Dilute hydrochloric acid, - drops, iij.
Distilled water, - - - ℥iij.

Or the chloralamid may be dissolved in an infusion of tea to which should be added a considerable quantity of sugar.—*Medical News.*

Ringworm.—Ringworm of the body is generally very amenable to treatment, judging from the numerous domestic remedies which act so successfully. Sometimes, however, an obstinate case is encountered and recourse is had to the physician. In such cases a rapid cure is desirable, and the application of the following, once daily, for two or three consecutive days, will generally prove successful:

℞ Hydrarg. bichloridi, - - - grs. ij.
Tinct. benzoin co., - - - ʒj.—M.

Paint over affected parts.

Care should be exercised not to paint too large a sur-

face, as the above mixture is toxic. If an excoriation exists it should not be applied, as it is irritating to the wounded integument.—*Medical Chips.*

PRURITUS HIEMALIS.—Corlett recommends the following topical applications in "winter itch":

℞ Resorcin, - - - - - ʒj.
Glycerin, - - - - - ʒij.
Aquæ, ad., - - - - - ℥iv.—M.
Sig.: Apply.

℞ Menthol, - - - - - ʒiijss.
Glycerin, - - - - ℥ij.
Aquæ, ad., - - - - - ℥iv.—M.
Sig.: Apply.

℞ Ichthyol. ammon. sulph., - ʒj to iij.
Glycerin, - - - - - ʒij.
Alcohol, aa q. s. ad., - - ℥iv.
Aquæ, aa q. s. ad., - - - ℥iv.—M.
Sig.: Apply. —*Boston Med. Journal.*

NIGHT-SWEATS.—The following prescriptions for the relief of night-sweats are published in the *Revue General de Clinique et de Therapeutique:*

℞ Sulphate or tannate of quinine, grs. xv.
Powdered ergot, - - - grs. xxx.

Divide into four powders and take two or three in the course of the day. This prescription is also valuable in cases having a tendency to hæmoptysis. Or

℞ Powdered agaricine, - - - ʒj.

Make into four powders and take one powder at night.

℞ Powdered agaricine, - - - ʒj.
Powdered belladonna root, - grs.vij.

Divide into four powders, take one powder at night.

℞ Powdered agaricine, - - - ʒj.
Tannin, - - - - - ʒj.

Make into four powders and take one to two powders a day.—*Medical News.*

PUBLISHERS' NOTICES.

MEDICAL BOOKS.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

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IT IS a matter of fact that many healthy men and women to-day owe it to the faithful use of the Hypophosphites of Lime and Soda that they did not die of consumption years ago. See the excellent advertisement of McArthur's Syrup on title page of this issue, and follow the excellent advice therein contained.

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ORIGINAL COMMUNICATIONS.

A REPLY AND REVIEW.

BY GEO. F. HULBERT, M.D., ST. LOUIS.

The question has so frequently been asked the writer, "What book shall I get to aid me in intelligently applying electricity as a therapeutic means in disease," that we are prompted at the present time to briefly make a reply in the columns of the REVIEW for the benefit of those who to-day may be asking for information.

We emphasize, at the present time, for the reason that recently there has appeared a book which is the first to enter the field, which we have always maintained should be intelligently and competently surveyed, before any man—we care not who he may be, or what his other qualifications and attainments—is in a position to use electricity as a therapeutic measure with profit to himself and patient, and be entitled to any consideration as an honest seeker for truth, or be enrolled in the ranks of those who are day by day rendering their portion for the benefit and advancement of scientific medicine. Heretofore, those who would have a knowledge of the subject, as specially applied, have been compelled to wade through and weed out from many books that which is so greatly needed, and have been surfeited with methods, means and appliances, as well as physiological laws and phenomena, as observed and enunciated by various would-be authorities. The result has been a jumble and chaos of so-called facts, opinions and results, so contradictory and irreconcilable, that the one who is in earnest and would know the truth has been appalled, disappointed and disgusted, and exclaimed, What manner of men these electricians be! In the rush for priority and fame, the real substance and fundamental principles, which are so valued and necessary to the truly scientific electrician, have to to the so-called medical electrician, appeared unnecessary, of small value, and been swamped by the personal equation. The diagnosis of the condition of affairs is empiricism, the anti-Christ of scientific medicine. Scientific procedure and method propounds and demands an unbiased and honest reply to three questions, What? Why? How?

As related to the subject under consideration the reply to the first is as full a knowledge of the things themselves as is attainable, namely electricity, its phenomena and principles or physics, and health or disease, the normal and abnormal, the conditions, so to speak, to which the former is applied.

The reply to the second query is the cause and effect, the philosophy as related both to electricity and health and disease.

The reply to the third, the full fruition of the attained knowledge of the two preceding, the therapeutics, the method and appliances.

Without these, without this comprehension and knowledge, the result of our work must ever be of small value and importance, not only to ourselves, but any one else. It is this conception that has led us to offer this review of a praiseworthy book, which meets the needs of the physician who would use electricity in disease, to a degree so far above any yet presented that there is no room for comparison.

In stating the question thusly, I do not wish to detract one jot or tittle from that which is of value from others who have honestly striven to give us the truth, such as Althus, Erb, Tripier, Apostoli, Engelman and Massey, but in all of these there are many vulnerable places, and in some absolute blunders and untruths. In all of them that which has so much been desired has received what may be termed a passing oonsideration. The publication which we wish to present is entitled, "Electricity, Its Application in Medicin and Surgery," by Wellington Adams, M.D., of St. Louis, in two volumes, published by Geo. S. Davis, of Detroit, Mich.

Having had the pleasure of a personal acquaintance with Dr. Adams for some time, and being familiar with his work, not only in medicine, but also in the electrical field, he being the inventor of many electrical machines and instruments, the most brilliant being his original invention, the electric motor for our street railways, and having served as a practitioner and teacher in medicine, we have no hesitation in saying, there is no one who is better fitted to present a concise and practical exposition of modern scientific electro-therapeutics.

The subject in his publication is treated honestly and fearlessly, in that the truth is upheld at all times, and error is condemned unsparingly. There is found no bias save for that which is best and of most value.

Chapter II, Vol. 1, devoted to the consideration of electricity and magnetism, is one of the most concise, clear and satisfactory presentations of the subject for the physician that we have ever perused. The way in which Dr. Adams presents the significance of the terms, "volts," "resistance," "amperes," electro-motive force, can be comprehended by the most ignorant. The exposition of the so-called varieties, units of measurements, etc., is full of information absolutely necessary for the scientific use of electricity in medicine.

Chapter III, Vol. 1, devoted to the application of electricity in medicine and surgery, is replete with sage advice and correct information regarding the necessary paraphernalia. Here we find plain and explicit instruction as to construction and usefulness of the different appliances needed in an electrical outfit, with unhesitating recommendation of the best in the market. Batteries, dynamos, rehostats, milliameters, coulombmeter, voltmeter, ohmmeter, rheatome, induction coils and farado-meters are all treated of and with great profit to the reader. The latter instrument is one of the inventions of Dr. Adams, by which he has successfully contradicted the confident statement of the impossibility

and impractibility of such an instrument by several would-be authorities. Its value in medicine is unquestioned.

Chaper I, Vol. 2 continues on the forms of electric machinery and their application. Here is treated the static induction machine and static electricity in a comprehensive and highly entertaining manner.

The diffent forms of machines in the market are closely and fairly criticized, the result being that the reader is placed in a position to make an intelligent and safe selection of the best. The author here gives us another invention by which the potential differences of static electricity can be accurately measured. All of the other accessories as polechangers,switches,reversers, cords and tips, electrode handles, post, electrodes, etc., are clearly explained. Finally we are presented with the complete outfit or cabinet with a scheme or plan of construction, accompanied with full instructions, followed by several illustrative experiments as to administration. Motors, cautery, batteries and accompanying appliances are fully treated of in the latter part of the chapter. The appliances for the different specialties are also presented.

Chapter II, Vol. 2, the closing chapter of the work, is briefly devoted to electro-physiology, electro-chemistry, electro-diagnosis and electro-therapy, a fitting close to what has gone before. The special value as well as contrast of this work with oll others is simply this, that the real and necessary knowledge, laws and phenomena, technique, physics, and manner of construction, and manner of action of appliances has been considered, and presented a pre-eminent, while the natural result of the possession of this knowledge, the application of the agent, guided by the knowledge possessed of physiology, chemistry, diagnosis and therapy, has been placed secondarily. He who will master and digest the information found in all preceding the last chapter in the work, need have no fear of the character or results of any work he may attempt in applying electricity in disease.

The unqualified and hearty endorsement which we have given to Dr Adams' work may seem somewhat biased to many, if so, we can only say that it is our honest opinion, candidly expressed, formed from an extended experience and study of the subject treated, for the last seven years. Our appreciation of the value of electricity, especially in gynæcology, is to-day fully crystalized and in firmer control of us than it was in the enthusiasm of the beginning. For this reason a work of this character comes home to us with peculiar satisfaction. Notwithsanding we would not be understood that there are none others or that the work contains all of the subject that is useful. He who would know more fully needs more than the best single work on any subject. For this reason other works should be faithfully studied, and first of all we would place Ganot's Physics, the school-boy's book. Next select from those devoted to the scientific and special consideration of electricity, for instance, Arynton, on Practical Electricity; Prescott, on Electricity and the Telegraph. The latter work is somewhat ancient, but there is much of value for the student to be found in it. Among the medical writers stands preeminent, Erb. Then comes Athus and Tripier, and as related to gynæcology, Apostoli, Englemann and Massy. In the study of all these keep with you for constant comparision and reference, Dr. Adams' work The great value and benefit which we are certain will accrue from Dr. Adams' work will be a renewed, fresh impetus to the study and application of electricity in scientific medicine, and the establishment of the necessity of a thorough knowledge and acquaintance of the subject, before any attempt should be made to use the agent as a therapeutical means. Those who will or cannot do this and properly equip themselves for the use of electricity must step aside and be silent; their influences as stumbling blocks must be ignored by those in earnest. The carping critic, the ignorant critic, must be treated with silent contempt and attention and consideration given only to those who speak in terms and after the manner of those who know whereof they speak. Chaos and opinion must pass away before order and knowledge uncertainty before precision, truth from before falshood.

3026 Pine street.

SCARLET FEVER.

BY M. J. SANDERS, M.D., JONESBORO, ILL.

Scarlet fever (scarlatina) is a contagious fever produced by a specific germ; it is characterized by a peculiar exanthem, an affection of the throat, and albuminuria, and terminates in desquamation of the epidermis. This is one of the most frequent and most fatal diseases peculiar to childhood. I say peculiar to youth, yet we frequently see it in the adult.

It begins usually in an abrupt manner; in the adult with a chill followed by an intense fever, together with headache, thirst and often delirium. The pulse increases to 110–120 or more per minute, occasionally there will be twitching of the muscles, and the patient will start at the least sound or movement, thus showing the cerebro-spinal system to be affected. Within the first 24 hours vomiting usually occurs. It is probably sympathetic, due to the effect of the specific virus on the brain. If there is a great amount of vomiting, showing the stomach to be very irritable, then prepare for a serious case. In a mild form of the disease the bowels are regular or only slightly constipated; if there be diarrhœa, it is only for a short time. After these symptoms have lasted 6 to 18 hours a rash begins to appear; it is first seen on neck, face, shoulders or hands; comes in patches resembling the surface after it has been overheated. The patches gradually spread and unite, until the whole surface is covered. In passing the finger over the spots, no elevation can be felt, except a little nodule caused by the congestion of the cu-

taneous papillæ. The rash disappears on pressure, but returns again as soon as the pressure is relieved. If it returns slowly it shows the circulation to be sluggish, and the case will likely prove to be a grave one. This rash causes an itching sensation, which is very disagreeable to the patient; it is not uniform in all parts of the body, and in mild cases may be absent in some parts. Early in the disease, often before the rash appears, we have pharyngitis, tonsilitis or stomatitis; this often proves so severe that deglutition is almost impossible. Very often the Schneiderian membrane becomes inflamed, secreting a muco-purulent fluid.

The temperatue in the first few days is usually 102–105° F. in the mild, and 105–107° in the grave cases; skin hot and dry; respiration slightly accelerated. These symptoms continue for 4 to 6 days, then gradually subside; the rash becomes paler, fever slighter, the engorgement of the papillæ and tonsils abates. The appetite returns, the countenance brightens and looks natural. Desquamation now begins about the face and neck and gradually extends over the body; this occupies several days. I have given the history of a mild case of scarlet fever,but there is no disease which has so many unfavorable complications and sequelæ as this one. Sometimes the attack is so light as to render diagnosis difficult, and I dare say this is what gave rise to the name scarlet rash. I remember in our own family the different members had very different symptoms; I was the first to take it, was not sick at all, was covered with the rash before I knew there was anything wrong; had no fever, that I know of, no throat trouble, except a little hoarseness, and maintained a very good appetite. The other members of the family, except one, were very sick; high temperature, severe pharyngitis and tonsilitis, loss of appetite with slight diarrhœa. My sister, then 4 years of age, who was the last to become afflicted, showed slight malaise, a little rise of temperature and no rash at all.

Now, while we have the mild forms of this disease, we also have what is known as the malignant form. This usually begins with severe symptoms, as delirium or intense cephalalgia, and the patient may pass into coma and die within two or three days. Others appear exceedingly restless, will toss about in a half dozen different positions in as many minutes.

They lie in a stupid condition or in a low muttering delirium similar to that found in severe cases of typhus. Pulse rapid, 130–160 per minute; temperature 103–104°, sometimes as high as 107° F. In the first three or four days we may have convulsions and coma; after this period the danger is mainly from exhaustion.

Complications may occur in any form of the disease, but more often seen in the malignant cases. There may be convulsions or suppuration in subcutaneous tissue of the neck, and gangrene of the mouth occurs in a few instances as a complication or sequel. Entero colitis is also a complication, although it often antedates the fever. Articular rheumatism often occurs when the fever begins to decline.

Pericarditis and pleuritis may also be noted as complications. Many of these complications may also occur as sequelæ, as nephritis with albuminuria and otorrhœa.

Scarlet fever is the representative of the contagious affections; it is infectious and inoculable. Stoll, d'Ambois and others have successfully performed the operation of inoculation, using the blood, but they did not succeed in diminishing the severity of the disease.

It is a disputed question whether it occurs spontaneously; but it is agreed that if it does originate in this way the instances are rare. It is communicated by exposure to patients or by fornites; the distance of contagion being short; the most common mode of transmission being the clothing. It is believed that physicians have carried it from one house to another in this way. Smith gives an instance in which the attending physician went from a house containing scarlet fever to another and took a child on his knee; this child died within a few days of the disease.

Prof.Jenkins, of Keokuk, gives an instance of a child who, while sick with this fever, wore its lace hood a few hours; after its death the mother burned all its clothing except that; several months after the hood was taken from its box, where it had been ever since it was worn, for the "new baby" to wear; this one died of the same fever within two weeks after wearing the hood. So we might give case after case as recorded by the various writers, but this is enough to show how very careful we must be in guarding against the dissemination of this disease.

This occurs most frequently between the ages of 3 and 10 years; yet Bartholow gives an instance where it occurred in a gentleman 60 years old. I knew a gentleman who had the fever when 32 years of age, and a lady when 30 years old.

It may be sporadic, but more often it occurs as an epidemic; these epidemics are unlike in type; some being mild unattended by serious complications, thus giving satisfaction in the results of our treatment; while in others the complications are frequent and serious and mortality great. We may have a succession of epidemics of one type, then a change in the disease.

It usually occurs in the same individual but once; yet it may occur a second time. In diagnosis you differentiate measles, erythema and roseola by the character of the neck, the degree of sickness, nature of tongue and integument, and clinical history of case from day to day; this will generally establish a correct diagnosis.

Prognosis in the mild form is good if the patient is surrounded with hygienic conditions and carefully and sensibly nursed. The symptoms, in the first days of the fever, which indicate an unfavorable termination, are convulsions, great drowsiness, great elevation of temperature, a rapid pulse, duskiness of the eruption, and feeble capillary circulation.

Treatment is necessarily symptomatic; if there be tendency to constipation, a gentle cathartic should be

given from time to time; if the case be mild this with a diaphoretic is all that is needed. If there is restlessness an occasional dose of bromide of potassium with a hot foot-bath will give relief. When there is a great amount of cephalalgia cool applications to head are indicated. After the fever has abated, if the appetite seems poor, a tonic should be given. During the stage of eruption, should the surface be pale and circulation feeble and eruption tardy, Bartholow recommends belladonna 2–10 drops of tincture every two hours, and if this fails use turpentine.

To allay the unpleasant burning or itching sensation he uses cocoa-butter or lard; Smith uses sweet-oil or glycerine with six or eight drops of carbolic acid to the ounce; rub the surface of body with the ointment frequently; this also diminishes the temperature.

This pharyngitis may need attention; this may be treated with a bladder of pounded ice to the throat; a slice of salt pork reaching from ear to ear; a cloth containing camphorated oil; either of these as an external application is good. In severe cases it should be treated internally also; for this a gargle of potass. chlor., carbolic acid, glycerine and water is very good. In young children this may be applied with a camel's hair pencil. The diet should be nutritious, broths, milk-porridge, etc. Those affected with grave forms must be fed regularly, night and day, as in typhus or typhoid fever. If there is great prostration, alcoholic stimulants must be given. Temperature of the room should be uniform or as nearly so as is possible.

Complications are treated specially as they show themselves.

TRANSLATION.

FROM THE FRENCH.

Translated for the REVIEW by Wm. Dickinson, M.D., St. Louis.

EPILEPSY INDUCED BY AN IMPERFORATE HYMEN.

Dr. Somers reported in the *Lancet* the resume of an interesting case, published in *la Revue des Sciences Medicales*. It was that of a patient in whom epileptic seizures had then recurred for three years. They had for a year been preceded by periods of general malaise, loss of appetite and pain in the abdomen, recurring every month. They were at first at long intervals, but at last they appeared with increasing frequency. All the symptoms were those of ordinary epilepsy, and Somers, considering the age of the patient (21 years), and the absence of the catamenia, at first suspected pregnancy in an epileptic, but an examination led to the detection of an imperforate hymen. An incision allowed the escape of thick and sanious pus. Since then her catamenia is established, and her general condition is good. No attacks have reappeared now for fourteen months. —*Jour. de Med.*

DOUBLE PREGNANCY, UTERINE AND OVARIAN.

M. Herzfeld has observed the following case: A woman, æt. 33, was delivered at full term for the third time. Delivery being accomplished the abdomen was observed to remain still enlarged. A second fœtus was then clearly detected at the side of the fundus of the uterus, which was entirely empty. This woman was then conveyed to the hospital, but the second fœtus seemed to imperil life. M. Hersfeld performed laparotomy, and then very easily delivered that second child, connected by a simple band to the annexes of the uterus.

The idea of a tubal pregnancy must be excluded, for the right horn presented no solution of continuity. On the other side the uterus was entirely empty, and the annexes of the left side were perfectly normal. It was then ascertained anatomically that an ovarian pregnancy had actually taken place.

This case is singular, not only on account of the strange coincidence of an extra-uterine pregnancy and a normal pregnancy, but also because it demonstrates that a purely ovarian pregnancy is possible, and that it admits of a complete development of the fœtus.—*Le Bulletin Medical.*

ALTITUDE AND DISEASES OF THE HEART.

It is said that organic affections of the heart are found with special frequency in mountainous regions, as of the Alps, Persia, Mexico, etc. It is natural to attribute it as a cause to the effort demanded of the heart during ascents. This statement being without a statistical basis, Miss Neouilla Ivanoff, at the suggestion of Dr. Vogt, has made investigations respecting the frequency of diseases of the heart in Switzerland at different altitudes, and the results which she has obtained are in contradiction to the generally conceived opinion.

She has examined, from this point of view, 25,000 cases of death from cardiac affections that occurred in Switzerland from 1876 to 1886. Reporting upon the total number in a population of 100,000 inhabitants, she ascertained that at the elevation of from 200 to 400 meters, 1,200 to 2,400 feet, 102 died from cardiac disease; from 2,400 feet to 4,200 feet, 92; from 4,200 to 7,200, 82; and 47 at altitudes above 7,200 feet. Therefore diseases of the heart became less according to the altitudes attained. Mortality from cardiac affections in Switzerland is much greater among the inhabitants of cities than among the mountaineers, whose labors also constantly require them to climb great heights, often with heavy loads.

If with these we compare that of the farming sections, the mortality from cardiac affections seems very greatly to diminish, according to the degree of altitude. On the contrary, if we compare the industrial regions we find the mortality much greater in the hilly than in the low countries. A very careful examination induces the belief that the ordinary industries in the hilly countries

(watch makers and embroiderers by machines) are but little fatiguing, while those in the level country (weaving, spinning, building) demand continual exertion. From these data it seems to result that physical exer cise far from being prejudicial to cardiac subjects is, on the contrary, favorable to them.—*Le Bull. Med.*

Pregnancy and Ovariotomy.

M. St. Toth has successfully operated upon three cysts of the ovary with concomitant pregnancy. That is a serious complication. Of 82 cases which Olshausen has been able to collect, death has occurred in one tenth of the cases, and abortion in one-fifth.—*Le Bull. Med.*

Ichthyol.

Ichthyol in the treatment of dyspepsia and of cerebral and nervous troubles dependent upon it.

The author reports seven clinical observations, which authorize him to state that ichthyol, taken internally, is a very efficient medical agent for combating vertigiginous affections and cerebral affections accompanying simple and gastro-intestinal dyspepsia. He adds that, in consequence of the bromide of potassium, it has the great excellence of being well tolerated by the stomach, of stimulating the appetite and of promoting digestion. —Stocquart, *Arch. de Med. et de Chir. Prat.*, Bruxelles.

Treatment of Spasmodic Torticollis by Excision of the Spinal Accessory Nerve.

The author reports three favorable cases by this method of treatment. In each case the spasm, which affected chiefly the sterno-mastoid muscle, was severe in degree, rendering the patient incapable of doing anything. It had supervened without obvious cause, had persisted for several months, and had resisted all ordinary modes of treatment, among others, large doses of bromide of potassium, galvanism, massage, revulsives, etc. The operation was made in the same manner in each case, viz., an incision three inches in length was made along the border of the superior portion of the sterno-mastoid, and the nerve, by a careful disinfection, having been laid bare, about one-third of an inch was exsected before its entrance beneath the deep surface of the muscle. The immediate effect of the operation was complete paralysis of the sterno-mastoid; the spasm ceased, and the position of the head was much improved. The head did not immediately assume the normal position, on account of the shortening or the contracture which the muscle had assumed, in consequence of the vicious position in which the neck had been for a long time. This was remedied by manipulation and by an elastic band attached to a plaster apparatus of Saye (head and shoulder), and adjusted in such manner that extension should be exercised in a direction parallel to the sound sterno-mastoid muscle.

In the first case, a woman, æt. 31, had suffered for six months from a clonic contraction of the sterno-mastoid; it had supervened by degrees, and had drawn the right ear in contact with the shoulder. There was acute pain in the neck of the same side.

The second case was of a man, æt. 35, who, for five months had suffered from clonic spasm, involving at times the sterno-mastoid, trapezium and left scalleni muscles, in such manner that the head was constantly describing rotatory movements.

In the third case, a man, æt. 24, had suffered spasm for three months, as in the preceding case. Now after the lapse of eighteen months, and six months after neurectomy had been performed in the first and second cases, the head is right and the patients can pursue their respective vocations. Sometimes and generally toward evening when they are fatigued by the labor of the day, the spasm returned in some degree; but this became less and less frequent, and could, by voluntary effort, be prevented.

In the third case neurectomy had been performed only one month; the result was good, and the patient was improving every day. The author had now performed the operation on seven subjects, and the results are very encouraging. The cases which appear most appropriate for operative intervention are those in which the sterno-mastoid alone is affected; but in the other cases excision of a portion of the spinal accessory nerve is worthy of a trial, for no other method of treatment has given as satisfactory results.—F. A. Southam, *Rev. Internat. le de Bibliographie.*

Resection of a Hypertrophied Prostate.

Mr. Tobin (of Dublin) performed at St. Vincent's Hospital an operation which is said to render great service—the resection of a hypertrophied prostate in cases of retention of urine.

The operation was performed on a man, æt. 60, affected with a considerable hypertrophy of the prostate. Mr. Tobin, first of all, made a supra pubic cystotomy, and with two fingers introduced into the bladder, he ascertained that the middle and left lobes of the prostate were hypertrophied. He then introduced through the urethra a brass wire doubled, and sufficiently curved to easily pass through the urethra. With the fingers introduced into the bladder, the wire was made to surround one of the lobes of the prostate. Then a silver sound was introduced into the urethra, and its extremity was made to press upon the anterior border of the lobe of the prostate which obstructed the urethra, while externally, by means of a kind of screw, the wire was tightened; the fingers still in the bladder, prevented the loop placed around the lobe of the prostate from slipping off the organ that was to be removed. After a few turns of the screw, the lobe was cut off and by the fingers removed from the bladder. There was no hæmorrhage. The bladder was then flushed and the abdominal wound closed. A drainage-tube was, however, left

in the bladder for twenty-five days. At the expiration of that time the tube was removed, but for some time a sound was allowed to remain in the bladder. The patient left the hospital cured; he urinated as easily, he said, as a young man of 16 years.—Dr. Gubb, *Le Bull. Med.*

Some Indications for Paracentesis in the Treatment of Acute Iritis.

Besides certain complications of iritis for which paracentesis has been already recommended, the author, with many observations in support, has demonstrated its utility in the ordinary treatment of the affection. It is at the very outset that paracentesis should be performed. The age of the patient and the state of the pupil furnish the indications. In the eyes of old people iritis is accompanied more particularly by an increase of tension, the effect of which upon the nutrition of the lens and the globe very soon effect pernicious results. Paracentesis performed from the beginning will prevent those accidents. The state of the pupil furnishes the second indication. If in the course of four or five days of treatment, and after the judicious employment of mydriatics, the pupil does not react a regular dilatation of eight or nine millimeters, paracentesis should be performed. Some hours after, in the majority of cases, pupillary dilatation is complete, in consequence of the strong muscular contraction, induced by the evacuation of the aqueous humor, the adhesions give way, and the iris becomes more amenable to the influence of mydriatics.

Such is evidently the mode of action of the paracentesis. The operation, a little painful on account of the cocaine employed, is, nevertheless, without danger, and can be repeated many times in the course of the disease.—A. Puech, *De Bibliographie Medicale.*

Tellurate of Sodium and Camphoric Acid in Night Sweats.—According to Dr. Combemale, of Lille, tellurate of sodium and camphoric acid are new remedies for the distressing sweats which add so greatly to the discomfort of patients in certain affections. He states that the former drug, in daily doses of 5 cgms.' infallibly controls the night sweat of phthisis, and that this effect is obtained at all stages of the disease. In the latter stages, however, correspondingly increased doses will have to be exhibited. Dr. Combemale regards this salt as the best anhydrotic agent we possess. Camphoric acid he declares to be only a degree less powerful than sodium tellurate, 2 gm. daily failing to arrest, or at least considerably diminish, night sweats. The efficiency of the acid is in inverse proportion to the progress the phthisis may have made. This observer, asserts that pathological sweats, other than phthisical, such as those of acute rheumatism, typhoid fever, syphilitic cavities, and dyspepsia yield to the above remedies. —*Nat. Druggist.*

WEEKLY MEDICAL REVIEW.

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TO CONTRIBUTORS AND CORRESPONDENTS.

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When a manuscript is sent to this Review, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

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Illustrations will be furnished free when drawings, carefully prepared in ink, accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the St. Louis Weekly Medical Review, 520 Olive Street.

All letters containing business communications or refering to the publication, subscription, or advertising department of this Review, should be addressed to The Medical Review Association, 914 Locust Street, St. Louis.

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SATURDAY, MAY 16, 1891.

Medical Education—Its Prerequisites and Course of Preparation.

The *Lancet-Clinic* republishes the views of the Boston *Med. and Surg. Jour*, which we deem of great value at the present time, when the subject of medical education is receiving unusual attention. We excerpt as follows, viz.:

"Few would now claim for a purely classical education the name of a liberal one to the exclusion of the study of the natural sciences. The immense debt of civilization to modern advances in technology, the adaptation of new laws and new forces in nature to our daily use and our daily needs, properly assert the right of purely scientific pursuits to be reckoned the equal of the humanities, which formerly were represented only by languages and literature. Yet modern medical study includes both the languages and sciences. Latin is interwoven with anatomy too intimately to be disen-

tangled. Botany and pharmacy equally require a fair acquaintance with this ancient tongue. Greek is more used in scientific nomenclature, and above all in the specialties of medicine, than in modern literature German is indispensable to modern medical investigation; and so also is French. Ancient and modern languages, then, four in number, besides the vernaculular, are required elements in a medical education to day. In this respect the medical school is closely allied to the purely classical college. But even without this we may justly claim that medicine, as now studied, requires an intimate knowledge of science, and also that the doctor, next to the naturalist, has the cultivation of his powers of observation carried higher than in any other profession.

"The required course of the Harvard Medical school covered, in 1870, about four months in each of three years, the same public lectures being repeated every year, so that the student could not follow a properly graded course; the required course of the same school now covers nine months in each of three years, and the instruction is different in each year of the student's course. In addition, a voluntary fourth year's course is maintained, and a great variety of instruction for graduates is given. All candidates for admission, except those who have passed an examination for admission to Harvard College, must present a degree in letters, science, or medicine, from a recognized college or scientific school, or pass an examination in the following subjects:

"1. English. Every candidate will be required to write legibly and correctly, an original English composition of not not less than two hundred words, and also to write English prose from dictation.

"2. The translation of easy Latin prose.

"3. Physics. A competent knowledge of physics (such as may be obtained from Balfour Stewart's 'Elements of Physics').

"4. Elective subject. Each candidate must pass an examination in any one of the following subjects: French, German, the elements of algebra or of plane geometry, botany.

"The following are the divisions of studies for the four years' course:

For the First Year.—Anatomy, Physiology, General Chemistry, Medical Chemistry and Materia Medica.

For the Second Year.—Practical and Topographical Anatomy, Medical Chemistry, Pathological Anatomy, Clinical Surgery, Therapeutice and Diseases of Children.

For the Third Year.—Obstetrics, Theory and Practice of Medicine, Clinical Medicine, Surgery and Clinical Surgery.

For the Fourth Year.—Ophthalmology, Otology, Dermatology, Laryngology, Mental Diseases, Diseases of the Nervous System, Gynæcology, Diseases of Children, Legal Medicine, Orthopædic Surgery, Genito-urinary Diseases, Hygiene, Vaccination, Bacteriology, Ovarian Tumors, Clinical Microscopy and the Preparation of Foods for Infants and Invalids.

"This course may be passed in three years, provided certain of the special studies of the fourth year are taken as electives.

"To learn medicine, we begin to study: (1) chemistry, or the composition of inorganic and organic bodies; (2) the dead man, healthy—or anatomy; (3) the dead man, sick—pathology; (4) the living man, healthy—physiology; (5) the living man, sick—clinical medicine. Many collateral sciences are also studied, as physics, botany and others.

"As matters now stand, one-half of the students who enter Harvard College—that half, namely, who become ministers, lawyers or physicians—enter, on the average, at nineteen, take the degree of Bachelor of Arts at twenty-two and three-quarters, and complete their training for the learned professions at twenty five and three-quarters or twenty-six and three-quarters. In the opinion of the majority of the Faculty these ages are all unreasonably high.

"Seven or eight years are now required to get an A. B. and an M.D. degree. Both are valuable. Can they not be combined? The plan proposed by the Harvard Medical School was to have the scientific and elementary medical studies, as chemistry, anatomy, physiology and perhaps botany, made electives for the senior year at Cambridge; so that the junior who had decided on medicine as his life-pursuit could select in his last or senior year at Cambridge studies which led him directly to his profession. Three years in the Medical School would then count as four, and he would graduate an M.D. one year younger than by the present method. This method, when reduced to its simplest terms, consists in counting certain agreed-upon courses of professional instruction both for the degree of Bachelor of Arts and for the professional degree."

It will not be questioned that the students educated at the Harvard Medical School possess, at least, equal natural abilities to those of any other section, and not only have three courses of lectures been required now for twenty years, but even a fourth is earnestly recommended, as is demonstrated by the following, selected from the *Med. and Surg. Reporter*, Philadelphia. This was the report in 1882, which statistics are before us. Doubtless, the same ratios exist at the present; they prove the advantages resultiug from the longer terms. Since the date referred to, a new college building has been erected and furnished at a cost, little, if any less than $300,000, with endowment of scholarships and professorships.

"It is a pleasure to observe the continued prosperity of such American medical colleges as are showing a genuine desire to elevate the educational standard of the profession. In the recent report of the Harvard Medical School for 1880-81 we are informed regarding the working of the new and higher requirements adopted by its authorities.

"The whole number of students keeps at about the

same. The number who applied for matriculation examinations was forty, of whom four were rejected. Of the eighty-five applicants for the degree of M.D., twenfive were rejected. As about one-half of the students have a literary or scientific degree, and all have had a compulsory three-years' course, this indicates a thorough sifting.

"In regard to the fourth year course, the class last year contained ten students. Five of them received hospital appointments, and only four went up for the special degree given for the extra years' study. None of these passed. The report states that it is too soon yet to say anything regarding the success or failure of the attempt at a four years' course. It seems probable, however, that it will not amount to much until it is made obligatory, or with only the alternative of a hospital appointment."

The following was published in the *Reporter* in 1882, and with large per cents added, the statistics will exhibit the status of medical students nine years later. The element of preliminary education is forcibly represented.

"There are at present in the United States about 12,000 medical students. The number has more than doubled in the past ten years. The universality of this class of students has also become more pronounced. There is now a "center of learning" for them in almost every State. In Maine, in Oregon, on the high plateaus of Colorado, on the prairies nearer east, and along the Gulf there are institutions which all furnish exceptional advantages for the prosecution of his work. It is evident that the medical student has become no small factor in society.

"We have 1,800 in this city, and there are not far from 2,200 in the State. Ohio stands next in number, having 1,400, thanks to a large attendance upon irregular schools. Pennsylvania follows with 1,200 students, and Illinois with 1,000, nearly one-third of the last number being homœopaths. Missouri and Kentucky have about 700; Maryland, Michigan and Tennessee, each 500. Massachusetts has only about 400.

"It would not be easy to portray the type of a class so widely distributed and subject to so many different conditions. The Harvard medical student, if we may credit the statement of his instructors, must be quite a different creature from some of his prairie or even of his New York *confreres*. The per cent of college-bred men in the Harvard medical School is nearly fifty. That in the Kentucky schools is zero. Among Missouri's 700 students 2 had received a classical education. New York's per cent is about 17; that of Illinois, 16; that of Pennsylvania, 8, and that of Ohio, 6, these being only approximate figures. While the possession of a careful preliminary training does not always insure superiority as student or physician, it undoubtedly has much influence upon his character and manners."

University of Texas.

In a recent letter by Dr. Thos. D. Wooten, President of Board of Regents, of Austin, Tex., addressed to Dr. Wm. M. McPheters, of this city, respecting the great University of this great State, we are permitted to extract the following, viz.:

"It is our purpose to open the Medical Department of our State University in the autumn of this year (1891). This department is located in Galveston. The College and Hospital occupy adjacent blocks, immediately upon the Gulf and Bay. These buildings have all the modern improvements and appliances of their kind. We shall begin with nine professors, and will give three years' graded course of instruction, of eight months each. We will pay our professors, on an average, three thousand dollars each per session. With the prospective deep water at Galveston, as the outlet of the commerce and trade of the West; with a teeming population in the near future as patrons of the doctor, the positions may not, we hope, be esteemed as mean, even by eminently qualified applicants. It is our desire to fill the chairs with men eminent for medical knowledge, with that sort of preparation and training, fitting them for teachers, in the several departments of medical knowledge. Comparatively young men, possessed of elements of success and capabilities of making reputation for the institution, would in the main be preferred. Able practitioners of medicine are not wanting in Texas. Those gifted as teachers of medicine are not so unknown."

Here is a new institution, yet embryonic, inaugurated in a comparatively new State, though an empire in extent, but under the guidance of a Board of Regents, possessing a keen and far-reaching appreciation of the needs of present and future populations. At the very outset it emerges into life, announcing a three years' graded course, and displays to the world a policy and liberality unprecedented in the history of medical colleges. By a single vault it has sprung to the front and assumed a place far above the contingencies of apprehended inanition, which in older States compels the resort to shorter terms, mimimum fees, and other arts and shifts for procuring patronage.

Texas has set an example worthy of all imitation by her sister States. With one exception in New York City, it presents an anomaly in the career of medical colleges, in that its professorships are salaried. Eight months in each year are devoted to collegiate and clinical instruction. Being complete in its arrangements and equipments, it will demand the highest grade of medical attainment of those who seek its honors. In projecting this scheme there can be no lowering of the standard, for him who is of mediocre intellect, nor abbreviation of time for him who is endowed with the stronger intellect or has enjoyed more favorable preliminary education. Schools are adjusted to the average mind,the greatest good to the greatest number. The

same facilities for all; no sliding scale; the highest excellence the only prize to stimulate the noblest ambition.

All hail to the Lone Star State!

Excelsior Springs, Clay County, Mo.

Excelsior Springs, situated in Clay County, Mo., 25 miles northeast of Kansas City, is readily reached by the Chicago, Milwaukee and St. Paul Railway. It has been said that "reputation is a plant of slow growth," but as "exceptions prove the rule," we find the latter demonstrated by the phenomenal rapidity with which these Springs have leaped to the front in the grand procession of mineral waters in this country. Scarce a decade of years has now elapsed since the site of these Springs was a wheatfield, and except to a few the world was entirely ignorant of the curative virtues of the waters concealed therein. The discovery, like most others, was the result of accident. The casual conversation of a company of harvesters respecting them induced a colored man to drink of the waters, who, in their hearing, was serving them. Report says he was afflicted with "scrofula." Having listened, he pondered, acted and drank freely and persistly; a cure, of which he had long despaired, was affected. He joyfully circulated his cure and the means by which it was accomplished. His experience speedily became the common property of the neighborhood, and from this as a center the news radiated throughout the adjacent country, to the cities in its immediate proximity, and thence spread throughout the State.

Others in turn resorted to them and with similar results. Increasing demand for hotel accommodation was followed by adequate supply; a company was soon formed which has now expended more than $600,000 in rendering the Springs second to none as a resort for invalids and pleasure seekers. From the humble beginning in 1880, as stated, has developed the present city of 3,500 inhabitants. The property consist of 40 acres of ground "artistically laid out in races, lawns and shaded walks, the whole embellished with profusion of shrubbery, vases, fountains and flowers." About 1,100 additional acres have been added, laid out in beautiful natural parks, with forest drive-ways and graded avenues, lighted at night by one hundred arc electric lights, scattered here and there, making a scene beautiful beyond description.

One of the chief attractions of the place is the "Elms Hotel." A large and elegant structure; it is open the entire year; has abundant capacity for 500 guests; is elegantly furnished and equipped with all modern conveniences. Incandescent electric light,automatic enunciators, fire alarm and steam heat in every room, besides numerous open fires, passenger elevators, 1200 feet of veranda, 16 feet wide, and cuisine unsurpassed. Every sanitary device has been adopted. Large and commodious bathing facilities, hot, cold, Turkish, Russian and plunge. All facilities for out and in door amusements are provided. A superb orchestra of ten pieces is constantly present during the spring, summer and autumn seasons. A large music hall has been erected at a cost of $35,000, capable of seating 1200 persons, also lighted by electricity and equipped with numerous sets of beautiful scenery for dramatic representation.

But that which renders the resort more valuable to the seeker of health is the character of the water, which combines in happy proportions tonic with antacid properties, rendering them eminently beneficial in functional disorders of the kidneys and bladder, as well as those of the liver and stomach, which induces the varied forms of dyspepsia. A friend recently visiting the "Springs," writes: I am astounded and delighted to see what proportions this, till recently, obscure locality has attained. This is one of the most beautiful and charming places I have ever seen, eqal in many respects, if not superior, to those of Virginia and other attractive States, with all of which I am perfectly familiar. Its natural features, its extensive and magnificent improvements, I cannot adequately describe. To be appreciated they must be visited and seen, and in person its luxurious accommodations experienced. Mr. H. C. Fish, who presides over this large establishment, possesses in an eminent degree the attractive qualities to receive and entertain, essential in the person of the proprietor, and will spare no efforts to please his patrons.

The water contains a number of mineral ingredients, but especially the proto-carbonate and sesqui-carbonate of iron, upon which as a valuable tonic, the superior excellence of the water is based. The assemblage of Springs consists of seven, of which the virtues of the Excelsior, Empire and Relief have been most thoroughly tested. The Empire Spring, over which is erected massive masonry of an ornamental character costing $6000, is five feet in diameter and eight feet deep. The water is clear and sparkling and the flow ample for all possible demands. Certificates of reliable persons are before me testifying to cures from dyspepsia, diabetes, diseases of the kidneys and urinary organs, rheumatism, debility from malaria, scrofula, etc.; amenorrhœa, menorrhagia, enlargement of spleen, hæmorrhoids, hepatic diseases, etc. The water is now bottled and sent to all parts of the country and can be obtained at the principal druggists in the larger cities. Between two or three car loads of the water is now weekly exported. The Springs are reached by Chicago, Milwaukee and St. Paul Railroad.

This is the locality to which the Medical Association is invited May 19, to hold its annual convention. To those in attendance special rates of $2 per day have been made. A very large attendance is confidently expected.

Physicians and other readers of the Review should not fail to examine its advertising pages, where much that may prove of interest will be found.

Number of Physicians in Vienna and Paris.

(*LeBulletin Medicale*). In Vienna there are 1315 physicians and 176 in the suburbs. The city contains about 800,000 inhabitants and the suburbs 400,000. This gives, on an average, one physician for 830 inhab itants, or more correctly, one for 600 in the city proper and one for 2250 in the suburbs. The distribution of physicians is very unequal in different quarters. Vienna is divided into ten districts; while the first contains 383 practitioners, the fifth has only 26 and the tenth 22.

If we compare these figures with those which Paris affords, we shall find that the medical preponderance is still more considerable in the capital of Austria (as in all German provinces) than in that of Paris. For a population of 2,300,000, Paris has 2,200 physicians, that is one to 1,000 on an average.

That one of the twenty wards which contains the largest number is the eighth (680); the next is the ninth (376). Those which contain the least are the twentieth (22); the twelfth (25); the thirteenth (26). The distribution of the physicians is determined by the wealth of the wards, and there is no ratio proportional to the population.

Medical Education.

Our confrere in the editorial chair of *Kansas Medical Journal* speaks with sentiments of no uncertain sound in respect to medical education; and intimates that the argument alleged for the short term maintained for the benefit of the poor young man desirous of entering the profession, is the veriest twaddle. He cites the significanc remark of Dr. McDowell, "that a thing brought about what is worth in the market:" *i. e.*, little cost, little worth. Manufacture of manual fabrics may be expedited, but the operation of the mind, when the limit exertion is reached, cannot be graded to a higher exercise. Until the idea of progress is voted a myth, pessimism is preferable to optimism, we shall continue to advocate the longer term in order to secure better preparation.

St. Louis Clinique.

Dr. Wm. Porter's energetic pen has placed the *St. Louis Clinique* prominent among the progressive medical journals of the country.

Meeting at Washington.

Much that concerned the American profession was brought forward before the meeting of the American Medical Association during last week at Washington. A higher standard of medical education, together with the editorial and business management of its mighty organ, were problems that received deliberate consideration.

St. Louis Medical Society Proceedings.

Many requests have recently been received, from different medical journals through the country, for copies of the proceedings of the St. Louis Medical Society. It was reported before the society, early in the present session, that the former committee on publication was unable to find a medical journal willing to publish in full these proceedings.

Of course the only explanation for this is, that these journals have heretofore failed to properly rate the value of our work.

MEDICAL ITEMS.

Richard C. Kerens, of St. Louis, on the 11th inst., was appointed by the President a member of the Inter-Continental Railway Commission, in place of George M. Pullman, resigned.

"Invention."—A London scientific journal says it has been discovered that the Kola nut has the power to restore to normal condition the worst sufferer from intoxication and monomania.—*Public Opinion.*

Girls do have some advantages, anyway! Of 500,000 girl babies born in Massachusetts 364,222 reached the budding age of fifteen. Of the same number of boys only 350,430 reach that age. In the happy land of New Jersey, where there are fewer factories and more peaches and sweet potatoes, both babies have a better chance, and the figures stand 368,311 and 378,293.—*Diet. Gazette.*

A Visible Heart.—There is at the present time in St. Mary's Hospital, a child about a fortnight old, in whom the sternum and costal cartilages are imperfectly developed. The heart is seen most distinctly through the thin cutaneous wall of the chest. The shape and size of the auricles and ventricles, with the filling of the auricles with blood, are quite as visible for all practical purposes as if the organ were completely exposed to view.—*Med. Press.*

Arkansas Physicians.—The State Medical Convention, being held at Hot Springs, adjourned May 1, after electing the following officers: President, S. Sibley, Paris; Vice-Presidents, J. F. Miner, Hot Springs; J. R. Anthony, Hot Springs; A. M. Drummond, Russelville; C. G. Mosby, Little Rock; Secretary, L. P. Gibson, Little Rock; Assistant Secretary, C. P. Debreill, Hot Springs; Treasurer, S. L. Buysher, Little Rock; Librarian, C. A. Christian, Little Rock.—*Republic.*

Reproduction of Bacteria.—It has been reliably determined (*San. News*) that bacteria, when placed in the best conditions for their activity, will double their number every hour. In the most favorable circumstances it will then be seen that a single bacterium will, in twenty-four hours, produce 16,777,220 of its kind. In forty-eight hours, from this single individual, the number of bacteria would amount to 281,500,000,000 a quantity sufficient to fill a pint measure, all produced in this short time from a single micro-organism measuring but 1-50,000 of an inch.—*Western Druggist.*

Antipyrin in Infantile Enuresis —Dr. J. Bouis son (Theses de Lyon) states that the effect of antipyrin in the treatment of the enuresis nocturna of childhood is "simply marvelous." The remedy is exhibited in doses of 10 grains, repeated to the third time (30 grains in all) at intervals of one hour, commencing four hours before bed-time. Of eight inveterate cases in which the disease had existed for several years, and upon which every other remedy and method of treatment had proved futile, every case was completely cured. Several months have elapsed since the treatment, and in no case has there been a relapse, nor have any symptoms of return been noted.—*Nat. Druggist.*

The Kansas City Medical College has recently decided irrevocably upon four years' study, with three full courses at college. The faculty contemplated the change last year, but not being able to get other leading colleges in the West to adopt the three-course plan, change was not thought best. Now, however, the faculty has taken decisive action, without asking others to join them, in the advancement of medical education. The action of the faculty is highly commendable, and will place the Kansas City Medical College in the position it should have fearlessly occupied several years ago. We hope to see all the colleges in the West, that have not made the same positive announcement heretofore, follow the example.—*Kansas City Medical Record.*

A Large Brain.—Wilson (*Edin. Med. Jour.*, January, 1891) reports the removal of a brain which weighed 64 ozs., in the post-mortem room of the Royal Edinburgh Asylum, from a man, æt. 75, 5 feet 10 inches in height. The circumference of the head was 24 inches. The brain was very anæmic, contained hardly any fluid, and was put on the scales immediately after removal. It was described as "large vertically, well-shaped all over, with convolutions if anything larger than normal, and sulci wide over the vertex, except the occipital."

Tne man's intelligence seemed to have been above the level required for his work as a sawyer, but was never of a high grade.—*N. Y. Med. Jour.*

The profession especially were shocked by the information that a serious accident had happened to the son of Dr. Bremer on May 2. Crossing the street in the rain, the umbrella being held low down for protection, he did not observe the approach of an electric car. This struck and prostrated him, nor could he be rescued until serious injuries had been inflicted upon his head and body. A stellate fracture of the cranium was found with scalp wounds. Later accounts represent his condition very hopeful; complete consciousness has returned; no symptoms of cerebral pressure; the only source of apprehension is sepsis, which, by the constant supervision of the father, we trust will be averted. The family have the most sincere sympathies of numerous friends and profound hopes for their dear son's recovery.

Why Boiling Settles Water.—Uno Idont, St. Louis.—Why does boiling settle water? If you take a quantity of the so-called water now being delivered from city hydrants, divide it into two parts, and leave one stand just as it is, and boil the other, at the end of a few hours the boiled portion will be almost limpid, while the other will still be very muddy. What is the philosophy of the process?

The water contains a large amount of air mechanically imprisoned along with the solid matter, sand and mud (and probably microscopic vegetable organisms). The air attaches itself to the particles of solid matter, and makes their specific gravity so nearly that of water that they do not readily sink. Boiling expels the air, and thus restores the true relations of gravity, and the suspended particles rapidly seek the bottom. The more thorough the boiling the better the result.—*Natural Druggist.*

The Treatment of Whooping Cough.—The following treatment is used very largely by certain of the leading specialists in diseases of children in Paris, in cases of whooping cough. It is divided into three periods. The patient should remain in one room or in bed, and the physician employs belladonna and small doses of opium with aconite, as in the following prescription:

℞ Tincture of aconite,
Tincture of belladonna,
Camphorated tincture of opium, - aa ʒi.

Two to five drops once or twice a day, according to the age of the child, is the proper dose. If there is no febrile movement the amount of the aconite can be decreased, and if constipation is present the opium should not be used. In the second period, when vomiting comes on, ipecac may be given in small amounts to allay gastric irritation, and in the third period, when convalescence is established, cod-liver oil, tonics and Fowler's solution will be found of service.—*Med. News.*

New York Pasteur Institute.—Dr. Paul Gibier, Director of the New York Pasteur Institute, in his first annual report, gives, as follows, the results of the preventive inoculation against hydrophobia performed at the above institute during the first year of its existence

(February 18, 1890, to February 18, 1891); 828 persons having been bitten by dogs or cats came to be treated. For 643 of these persons it was demonstrated that the animals which attacked them were not mad. Consequently, the patients were sent back, after having had their wounds attended, during the proper length of time, when it was necessary. In 185 cases the anti-hydrophobic treatment was applied, hydrophobia of the animals which inflicted the bites having been evinced clinically, or by the inoculation in the laboratory, and in many cases by the death of some other persons or animals bitten by the same dogs. No death caused by hydrophobia has been reported among the persons inoculated. Indigents were treated free of charge. The persons treated were from all parts of the country.—*Scientific American.*

PERSONAL.—Modesty might have prevented the editor from inserting the following; so we steal a march upon him in his absence and inform the readers of the REVIEW of the esteem in which Dr. Broome is held by others:

"The *Citizen* is in receipt of a sample copy of the ST. LOUIS WEEKLY MEDICAL REVIEW, a paper devoted to the discussion of interesting surgical operations, the study of diseases peculiar to their nature, and the general scientific progress of medicine and surgery. It is a twenty page pamphlet of neat typographical appearance and is edited by Dr. George Wiley Broome, a surgeon distinguished by many years usefulness in public life in many capacities. The writer remembers Dr. Broome, when he was professor of anatomy and clinical surgery in the St. Louis College of Physicians and Surgeons and the consulting surgeon to the Wabash Railroad Company. He has contributed many valuable papers to the literature of medical science and the fact that he has accepted the editorship of the REVIEW will be sufficient to give it a wide circulation the West and Southwest, where he is so well and favorably known."—*Arizona Daily Citizen.*

CORRESPONDENCE.

SURGICAL TREATMENT OF INGROWING TOE-NAIL.

SALISBURY, Mo, April 22, 1891.

EDITOR REVIEW.—In the REVIEW of April 18, is an article on "Ingrowing Toe-Nail," taken from Wyeth's article, published in the *International Journal of Surgery.*

I believe I have a better plan for removing this painful trouble, and give your readers the benefit of it.

Either with or without anæsthesia I remove the redundant flesh from the side of the toe, leaving the nail wider than the toe.

Dress with iodoform and then cover with a layer of absorbent cotton which can be made to remain in place without any fastenings. By making incision posteriorly the nerves are cut at once and there is little or no pain. When the wound heals the trouble is cured and the nail is still there. F. B. PHILPOTT, M.D.

A DOUBLE VAGINA.

HOT SPRINGS, ARK., April 30, 1891.

EDITOR REVIEW.—Mrs. B., æt. 29, called on me last July, and said she had not menstruated for three months. Had syphilis about four years ago. Upon examination I found no signs of syphilis. She was very pale and anæmic. On making a digital examination, I could detect no os. I withdrew my finger and again inserted it when I found the ordinary os of a woman who had never borne children. No signs of pregnancy. Vulva normal. I introduced two fingers and found that they entered separate canals. The vagina was divided by a soft flexible partition, extending from the vulva to the uterus, the right side a little smaller than the left, no opening between the two. The uterus seemed to have a double neck, with one os, and that on left side. She had been examined frequently but did not know that there was anything unusual about her anatomy.

I did not see her any more until about three weeks ago. She has not yet menstruated. Has developed some signs of syphilis. She is still very anæmic, having been reduced from 140 pounds to 115 pounds. She is now taking specific treatment and is improving. She has been in Vicksburg, Miss., since last July until about three weeks ago. A. U. WILLIAMS, M.D.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, May 2, 1891, E. H. GREGORY, M.D., in the chair

DR. FRENCH said.—This specimen is a very correct illustration of morbid growths which sometimes necessitate amputation of extremities. A short time ago Dr. Dalton of the City Hospital, presented to the society pathological specimens, showing evidences of malignant growth in the liver, perhaps in the kidney and other organs of the body, and their malignancy was determined by microscopical examinations made by the President. The speaker had exhibited to the medical class at a clinical lecture at the city hospital the case alluded to. It was that of a negro, æt. 43, who was suffering from a growth at the ankle-joint. While the question of malignancy was then discussed; and the question also arose as to the differential diagnosis between its probable character and tuberculosis, the man having a tuberculous history, we inclined to the diagnosis of tuberculosis. A short time after its removal, Prof. Summa, made a microscopical examination of the specimen, and pronounced it tuberculosis.

Subsequent developments of disease terminated the man's life, and the specimens of the diseased parts were presented, with microscopical preparations, etc. The result of the examination and the preparations induced, Prof. Bremer to pronounce the case one of sarcoma. The specimen now presented revives a similar question. This patient resides in Franklin County, and a week ago last Tuesday the amputation was performed. He is æt. 53; his father and mother are both dead; his mother having died when about 38 years of age of pulmonary consumption; his father met with an accident, while employed at a thrashing machine, when 60 years of age, from the effects of which he lost his arm; his arm too was amputated at about the same place as in this instance. His father was found dead in bed when 70 years of age, 18 or 20 years after the amputation of his arm. He had two sisters and three brothers, all of whom died, before they were 30 years of age, with consumption; one brother however may have attained the age of 30 or 40 years. This man was the last survivor of the family. The never had any serious illness; no cough or involvement of the lungs, or serious injury of any kind. Twelve years ago, he had an attack of what was termed pneumonia, lapsing as was stated into a typhoid state; he recovered slowly and partially; to make use of his expression, the next winter "he wintered badly," this is the only history of serious illness or injury of any kind. Two years ago last January, there appeared on the back of this man's hand a small wart-like growth; which extended from that time until that of the amputation. Of course at first the growth was very small and apparently innocent, and he applied to sundry physicians for its cure, and obtained a variety of ointments, and other preparations for the purpose of removing it. About 18 months ago he went to some advertising physicians, applied a caustic, which seemingly removed, not only the growth itself, but the surrounding structures; the irritation seemed to transcend the growth, and developed with increased vigor, constantly spreading deeper into the tissues. Since the holidays this man was conscious of losing ground; his health became greatly impaired; has been more or less nervous and suffered from general debility; his appetite was poor; was not specially emaciated, but he did not feel at all comfortable. This operation was performed twelve days since and the stump has now entirely healed. Upon examining the axilla no enlargement of the glands was found, but the lymphatics above the elbow were indurated, and a tumor was found, as large perhaps as a hen's egg. This was excised, and the wound healed kindly. The impression was enforced, that these glandular structures were impregnated with the virus of the disease, though they were not tender, and seemed to be due entirely to inflammatory action. Now is this a case of tuberculosis, or of epithelioma? The speaker was decidedly of the opinion that it was one of epithelioma, beginning in the soft structures and then extending to those that were deeper, with the results as here exhibited. The specimen has not yet been examined microscopically.

Dr. Dickingson said he did not propose to discuss this question, but simply wished to detail a part of conversation had with Dr. Bremer about the former case. Having mentioned to him that Prof. Summa had examined the specimen and pronounced it tuberculous, the doctor rejoined that was possible, for it might be both; different portions of the same organ might present different microscopical appearances.

Dr. Johnston said.—It was formerly held that it was not possible for tuberculosis and cancer to exist in the same patient, but according to Dr. Dickinson, that is now held to be possible. The microbe theory has control of the medical world, and everything is attributed to microbes. The speaker sincerely hoped the microbe theory may be demonstrated to be correct, for then we can say to our patients with confidence, your disease is due to this or to that cause.

Phenacetine.

Dr. C. O. Curtman said a few days ago he received a communication from Dr. Ludwig Reuter of Heitzerberg, announcing that a very dangerous impurity had been discovered in phenacatine, which is now being so very much used, and also communicating an easy mode for its detection. The impurity is a residum in the process of manufacture. One of the stages through which phenacetine, the finished preparation, has to pass, is that of paraphenacitidine, and this appears to be a very powerful poison, producing inflammation of the kidneys, a number of cases had been observed in the clinics of that town, and in other parts of Germany, during the prevalence of influenza, when phenacetime was much used, and in which very severe symptoms had occurred. It is peculiar to the preparation manufactured by the Baker Color Works. It is the result of the imperfect conversion of the paraphenacitidine into phenacetine, by means of acetic acid, which completes the process; and the residuum is sufficient to make it of very grave importance, it being a very dangerous impurity. It is easily discovered by placing a small quantity of chloral dydrate in a test tube, melting it at the heat of boiling water, and then adding one-fifth of phenacetine to it; if it is pure, the mixture will remain colorless, forming a diffused mass; if it is impure, if it is phenacitidine it will become of a purple color, passing from red into blue within a very short time—a half minute being sufficient to develop the color.

SOCIETY NEWS.

MISSOURI STATE MEDICAL ASSOCIATION.

The thirty fourth annual meeting of this Association will be held at Excelsior Springs, Mo., May 19, 20 and 21, 1891.

President, Dr. A. B. Sloan, Kansas City; Vice-Presidents, Dr. N. B. Carson, St. Louis, Dr. J. M. Richmond, St. Joseph; Recording Secretaries, Dr. J. C. Mulhall, St. Louis, Dr. Thos. Chowning, Florida; Treasurer, Dr. C. A. Thompson, Jefferson City.

PROGRAMME.

MORNING SESSION, MAY 19, 10 A.M.—Organization and preliminary work until 11 A. M. The President's address.

AFTERNOON SESSION, MAY 19.—Discussion of Pneumonia, Dr. W. C. Glasgow, St. Louis, Dr. C. A. Thompson, Jefferson City, Dr. F. A. Simmons, St. Joseph.

Report on Medical Education, Dr. A. W. McAllester, Columbia.

Dr. J. M. Richmond, St. Joseph, Alexander's Operation—Cystitis.

Report on Progress of Medicine, Dr. P. C. Yates, Neosho, Chairman.

Report on Progress of Surgery, Dr. H. H. Mudd, St. Louis, Chairman.

Dr. A. V. L. Brokaw, St. Louis, Some Cases of Pelvic Surgery. Specimens and Photographs.

EVENING SESSION, MAY 19.—Report on Obstetrics, D. O. Williams, Versailles.

Dr. L. I. Matthews, Carthage, Fever Conditions in the Puerperal State.

Report on Gynæcology, Dr. C. W. Adams, Kansas City, Chairman.

Dr. A. L. Fulton, Kansas City, Cancer of the Uterus.

Report on Neurology and Psychology, C. H. Hughes, St. Louis, Chairman.

Dr. Frank R. Fry, St. Louis, Chorea in the Aged.

Dr. J. K. Cole, Lamar, Psychology. A Remedy in Disease.

MORNING SESSION, MAY 20.—Report on Respiratory Organs, Dr. J. C. Mulhall, St. Louis, Chairman.

Report on State Medicine, Dr. Geo. Homan, St. Lous, Chairman.

Report on Bacteriology, L. Bremer, St. Louis, Chairman.

Dr. P. Paquin, Columbia, Ptomaines, Leucomaines, Tox-Albumose, Toxic-Proteids, and Protective Proteids.

Dr. S. J. Jones, Linden, Some of the Achievements of the Medical Profession in the United States.

AFTERNOON SESSION MAY 20.—Special Report on Medical Legislation, Dr. E. A. Donelan, St. Joseph.

Discussion on Pelvic Surgery, Dr. Willis P. King, Kansas City; Dr. N. B. Carson, St. Louis; Dr. Pinckney, St. Louis.

Report on Abdominal Surgery, Dr. F. S. Lutz, St. Louis.

Dr. H. C. Dalton, St. Louis, Somes Cases of Gunshot and Penetrating Stab Wounds of the Abdomen.

Dr. C. E. Erwin, Independence, Two Interesting Cases in Abdominal Surgery.

Dr. R. E. Young, Nevada, The Management of Insane Asylums.

EVENING SESSION, MAY 20.—Report on Pediatrics, Dr. C. L. Hall, Kansas City, Chairman.

Report on Ophthalmology and Otology. The Use of Strong Solutions of the Nitrate of Silver in Simple Chronic Blenorrhœa of the Conjunctiva.

Report on Present Status of Electrotherapy in Gynæcology, Dr. G. J. Engelmann, St. Louis.

Report on Anatomy and Physiology, Dr. R. S. Kelso, Joplin, Chairman.

Dr. E. Von Quast, Kansas City, Empyema and Its (Surgical) Treatment.

MORNING SESSION, MAY 21.—Report on Genito-Urinary Surgery, Dr. J. E. Tefft, Springfield, Chairman.

Report on Dermatology, Dr. J. H. Duncan, Kansas City, Chairman.

Dr. P. Schweitzer, Columbia, The Doctrine of Immunity by Inoculation.

Report on Public Sanitation, Dr. J. W. Trader, Sedalia, Chairman.

Committee on Arrangements: J. M. Allen, Liberty, J. M. Yates, Kearney, M. A. Bogie, Kansas City, A. L. Fulton, Kansas City, L. J. Jones, Moscow.

Committee on Credentials: L. A. Berger, D. K. Morton, C. A. Thompson.

Committee on Scientific Communications: C. A. Todd, E. W. Schauffler, H. H. Mudd.

Committee on Ethics: A. E. Gore, E. W. Schauffler, J. E. Tefft.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

Missouri State Medical Association, Excelsior Springs, May 19, 20 and 21.

Indiana State Medical Society, Indianapolis, May 13, 14 and 15.

Kansas Medical Society, Wichita, May 13, 14, 15 and 16.

Illinois State Medical Society, Springfield, May 19, 20 and 21.

West Virginia State Medical Society, Fairmount, May 20, 21 and 22.

North Carolina State Medical Society, Asheville, May 26, 27 and 28.

Connecticut Medical Society, Hartford, May 27, 28 and 29.

Pennsylvania State Medical Society, Reading, June 2, 3, 4 and 5.

State Medical Society of Wisconsin, Madison, June 3, 4 and 5.

Delaware State Medical Society, Rehoboth, June 9 and 10.

Maine Medical Association, Portland, June 9, 10 and 11.

Massachusetts Medical Society, Boston, June 9 and 10

South Dakota State Medical Society, Chamberlin, June 10, 11 and 12.

Rhode Island Medical Society, Providence, June 11 and 12.

Michigan State Medical Society, Saginaw, June 11 and 12.

New Hampshire Medical Society (centennial), Concord, June 15 and 16.

Colorado State Medical Society, Denver, June 16 and 17.

SELECTIONS.

SALOL.

BY ALFRED EICHLER, M.D , SAN FRANCISCO, CAL.

Salol is one of the recent additions to our materia medica, but its merits are now almost universally admitted. It was discovered and first used by Swiss scientists in 1886, and since then its use has spread all over the world. It is a white crystalline powder, obtained by the action of carbolic acid on salicylic acid, therefore being, in chemical nomenclature, a salicylate of phenol. In composition, five grains of salol are equal to about two grains of carbolic acid and three grains of salicylic acid. Therapeutically, its effects are entirely different from those of either agent administered alone, depending on the fact that its constituents are united by chemical union, and represent, therefore, a different body. Salol possesses an odor similar to oil of wintergreen. It tastes like carbolic acid; it is soluble in water only in a very small measure, therefore watery solutions are impracticable. In alcohol, ether and oils, salol is very soluble. Further, it is interesting to know that this substance, although crystalline, cannot be reduced to a very fine powder, because the crystals have a tendency to adhere. The odor of salol may be noticed, after its administration, in the excretions as well as in the expired air. The dose differs, according to circumstances, from 15 to 120 grains a day. It should be remarked, however, that a case has been reported in which a half drachm of salol, administered to a previously healthy person, and distributed in five-grain doses over the day, has produced a severe rash over the whole body, which disappeared spontaneously in five or six days (*Medical Record*, March 3, 1888). A case of poisoning has also been reported, in which a young man had swallowed at once two drachms of salol. The resulting coma was followed by death. At the autopsy, degenerative changes were noted in the kidneys, as might be expected; the harm done was attributed to the carbolic acid contained in salol (*Medical Record*, October 11, 1890).

As regards the method of administration of salol, it is best dispensed in pills, compressed tablets, capsules or emulsion. For external use lanoline, or a mixture of equal parts of lanoline and olive oil, offers a very good menstruum; if used externally in ointment form, it is usually prescribed in the strength of one part in ten of the ointment base.

Salol may be looked upon as a very efficient antiseptic, antipyretic and anti rheumatic. When ingested, it is insoluble in the acid gastric juice, but is is dissolved in the alkaline intestinal secretion, being perhaps split up by the alkaline elements of the bile into its original constituents, which are then absorbed and taken into the circulation, the carbolic acid being rendered non-poisonous by the change into a phenate (carbolate) of soda. This assumption is corroborated by the fact that salol is readily decomposed by weak alkalies like bi carbonate of soda—a point which should be remembered in prescribing. After absorption and diffusion through the system, the original constituents may be detected in the urine, the carbolic acid imparting the characteristic green color of phenoluria. As salol passes the stomach unchanged, experiments can be made with it in determining the activity of the stomach in propelling food. This test has been taken advantage of in dilatation of the stomach, and is available in all diseases where the motor power of the stomach is thought to be impaired. Of course, physiological tests of this kind depend so much on varying circumstances that definite conclusions can be arrived at only when a sufficient series of control experiments with healthy individuals is also carried out.

The antiseptic effects of salol are easily enough understood on considering that it is composed of two of the most powerful antiseptics now in our possession. As an antipyretic, it acts on account of being a derivative of salicylic acid, which itself has great heat-reducing virtues. Salol, however, is more easily tolerated by the stomach than salicylic acid, as it is insoluble and non-irritant; while the latter is a strong irritant of mucous membranes, and, therefore, cannot be tolerated by the stomach for any length of time in doses sufficiently large to produce good effects. That the salicylic acid is the antipyretic factor of salol is readily proved by the clinical fact that salol acts as an antipyretic only in large doses, twenty to thirty grains, containing from twelve to eighteen grains of salicylic acid. Small doses of salol reduce heat only in a very small measure. The carbolic acid and salicylic acid, into which salol is separated in the intestine, are eliminated mostly through the kidneys, as carbolate of soda and unchanged salicylic acid. Thus the urine is made antiseptic—a fact which has been taken advantage of in genito-urinary surgery.

The therapeutic action of salol resembles to some extent that of salicylate of soda. In comparing the action of the two remedies, much similarity may be observed, with some points in favor of salol. They are both excellent anti-rheumatics, salol, however, acting best in subacute rheumatism, especially when a short course of salicylate of soda has preceded its use. It will lessen the fever quickly, cause the pain to disappear, and the swelling will be reduced. As already mentioned, it acts better in chronic cases than in acute. For this purpose, it should be given in doses of not less than fifteen grains every three hours, preferably in wafer or capsule. Salol is especially efficient in those forms of rheumatism called lumbago. Sciatica, that uncertain disease, a veritable touchstone for medical skill, composed so often of neuralgic, rheumatic and malarious elements, often yields to large doses of salol.

In diseases of the alimentary tract, salol is also very efficient. It acts in the stomach merely as a mechanical antiseptic, similar to subnitrate of bismuth. In the intestine it becomes a full and strong antiseptic. This

has been made use of to treat various diseases of the intestine, like dysentery and diarrhœa. It is advisable here to combine salol with other suitable agents. For chronic diarrhœas, in which a cleansing of the intestinal tract may be desirable, it is good practice to order fifteen grains of salol in an onnce of castor oil, to be given at a dose; or, when pleasanter medication is desired, one may prescribe:

℞ Salol, - - - - - - ℈ij
Ol. ricini, - - - - - fʒjss
Syr. rhei., - - - - - ſʒss
Pulv. acaciæ, - - - - ʒss
Aquæ cinnamonii, - q.s. ad ſʒiv

M. Fiat emulsio. Sig. A tablespoonful every hour until the bowels move very freely.

In typhoid fever salol has been used, but with no more success than other remedies. A disease running a regular course like typhoid fever will not mend its ways, or be aborted, under any one mode of treatment. Salol, however, has proved quite efficient to moderate the diarrhœa, and in conjunction with other therapeutic means, like cold ablutions and wet packs, with free stimulation and proper nourishment, it becomes a valuable adjunct in treatment.

Diarrhœa infantum offers a good field for the administration of salol. It is especially useful when the intestinal canal has been severely irritated by the products of faulty digestion. It may be ordered then in small doses, alternating with antacid remedies, like chalk mixture and bismuth.

Affections of the genito-urinary organs are often improved by the exhibition of salol. The most common of all, gonorrhœa, is much more tractable to treatment with salol than without it. The main good is rendered by making the urine antiseptic and unirritating by its administration. It acts thus considerably better than injections of antiseptic substances, being practically an injection from within outward. In treating a case of gonorrhœa with salol, it can be given in conjunction with the balsam of copaiba, usually prescribed. It may be ordered as in the following formula:

Saloli, - - - - - - - ʒvj
Bals. copaibæ, - - - fʒiss
Syr. simpl.
Mucilaginis acaciæ, - - aa. fʒiij
Tinct. lavandul. co., - q.s ad fʒviij.

M. Sig. A tablespoonful three times a day, one hour after meals.

Large doses will prove more efficient for this purpose than small ones. The good effects are produced entirely by the action of the antiseptic and bland urine upon the inflamed urethra. Weak antiseptic injections into the urethra from without can also be used at the same time, and will assist in securing a speedy cure. It has been shown that salol, thus used, will shorten the course of the disease materially. Chronic cases improve under judicious use of this agent, if it be used with sufficient persistence. The urine appears, after the ingestion of these large doses of salol, in a much darker color, ranging from olive green to a blackish tint; this is caused by the carbolic acid contained in the urine, and need not be feared. Painful micturition is alleviated early, and the discharge is lessened promptly; in short, the acute inflammatory stage subsides much more quickly with than without salol.

In other diseases of the genito urinary organs salol also deserves a careful trial. In operating for stricture, it is advisable to have the patient take it one or two days before the operation, to render the whole urethra aseptic. Perhaps the infiltration of tissues, so feared after operations in this region, might be rendered innocuous, if salol were given beforehand.

In diseases of the bladder it also proves useful. In cystitis it leads quickly to amelioration of the symptoms, and thus proves valuable in this troublesome and painful complaint.

Salol is of great value in treating different affections of the air passages. As the characteristic odor of salol may be noticed in the expired air, it is quite right to assume that it exerts a local influence besides the constitutional impression. It is of great value in the treatment of acute catarrhal conditions, for the treatment of which it may be combined with various other suitable agents. Terpin hydrate, for instance, acts well thus combined. The two substances can be dispensed in small doses in capsules, and given alternately every two or three hours. If salol alone is given, it will often be found to be acting like a charm. It soothes irritation, stimulates free secretion, and permits the patient to expectorate freely. Patients often remark when salol is given, that the medicine raises the phlegm quickly. It is also recommended in tonsillitis, as it will shorten the duration, besides lessening the fever, quieting the attending pain and relieving painful deglutition. In this affection an emulsion would seem to be the best mode of prescribing the drug.

During the recent invasion of influenza, salol proved of great benefit to the many afflicted. It was quite often prescribed, especially in that form of the disease simulating anginas and catarrhal sore throat. Alleviation of the rheumatic symptoms also quickly followed its use. In the treatment of other infectious diseases, salol has been found useful.

As already mentioned, in typhoid fever salol will assist in procuring asepsis of the intestines. In scarlet fever, it has also been prescribed, and it is believed continued administration of this drug will aid in shortening the duration of the disease, by eliminating the infectious material, besides reducing the temperature.

Externally applied, salol gives excellent results in some diseases of the skin. For a simple erythema, it may be used rubbed up with starch to a dusting powder. The powder form, however, is not very eligible, as salol has a tendency to ball together and form lumps. It is more suited to a paste. As it is white in color, it may be freely applied about the face. In sycosis of the bearded portion, if it is thus applied, it will cause good results. A good formula is as follows:

℞ Saloli, - - - - ʒij
Zinci oxidi
Pulv. amyli, - - aa ʒiv
Lanoline, - - - ℥j

Of course salol may be added to this in any strength, provided the fatty vehicle is also increased. It is entirely innocuous when thus applied, probably not being absorbed through unbroken surfaces, and acting only as an antiseptic protective. The latter quality makes it also an admirable application in burns and scalds. It is, then, best used by dissolving it in some fatty oil, preferably olive oil, afterward pouring it liberally over the injured surface, which is to be covered with soft lint.

A summary of all these properties will show salol to be a very useful addition to our materia medica. It is to be regretted that it is, like most other late additions, a proprietary article, imported from Europe, and one which our laws prevent us from preparing ourselves; as a consequence, it costs more than it would if it could be manufactured here.

WHAT CAUSES EARLY HÆMORRHAGE IN PLACENTA PRÆVIA?

BY MAXIMILIAN HERZOG, M. D., CINCINNATI.

Various theories have been advanced to explain the early occurrence of hæmorrhages in placenta prævia at a time considerably previous to the natural termination of normal gestation. None of the theories brought forward, it seems to me, give a satisfactory explanation, because all only deal with the conditions at a time when the flow appears, and none make an effort to look into the state of affairs which exist when the misattached placenta develops prior to the date of the evident trouble.

It occurs to me that the following theory might, perhaps, contain some features to recommend itself in the explanation of the phenomenon referred to. It appears to me that the hydrostatic pressure in the interior of the gravid uterus plays the most important role in the production of the pathological conditions connected with and appearing in placenta prævia.

Let us first consider the conditions of hydrostatic pressure in the gravid uterus, the placenta being normally attached at the fundus.

Braxton Hicks has shown that regular intermittent contractions occur early in the course of pregnancy in the gravid uterus; contractions appearing then at regular intervals and being kept up constantly till the termination of gestation. These contractions exert a certain amount of pressure on the fluid contained in the amniotic cavity.

It is one of the fundamental laws of nature, that pressure exerted on a fluid, no matter where applied or how, will be propagated to each and every direction with the same amount of force. In other words, if we have a closed vessel containing fluid, and we exert a certain amount of force (pressure) to one square inch anywhere on the vessel wall, this force will be brought to bear upon every single square inch of the whole circumferential walls of this vessel. If we have somewhere in this vessel a place of lesser resistance than anywhere else, this place will, according to the strength of the force and the amount of elasticity of the special spot, bulge outward or yield, or rupture, as the case may be.

Each time when the uterus contracts during the so-called "Braxton Hicks contractions," the fluid contained in the amniotic cavity is subjected to a certain amount of pressure coming from the fundus. This pressure will be transmitted equally to every direction and will make the fluid rush toward the place of least resistance, which is, in the instance of the gravid uterus, to a point situated right over the os internum; here the uterine walls do not give as everywhere else—a resistant, unyielding (unyielding for practical purposes) support to the membranes surrounding the liquor amnii and fœtus —and, consequently, we must have at this point a bulging out. It will be very significant, truly, but it will exist to some extent.

The factors bringing about dilatation of the cerrix in labor, include the wedging open of the cervix by the membranous water bag, which is forced into it by uterine contractions. This is, in fact, only an exaggeration of the process going on, in a very minute degree, during the greater part of pregnancy.

As long as the placenta is normally attached, it will not be interfered with by the intermittent contraction; it is spread out over the fundus, and receives the impulse in a position where every square inch or fraction of a square inch is equally protected against hydrostatic pressure.

How different is the condition if the placenta is attached over the os. The point of least resistance in this case is found right under the placenta, and, consequently, it must, with each of the intermittent contractions, be pushed into the depression and be bulged outwardly, and this, very likely, from the very beginning of its formation. This bulging out is, in each single instance, very insignificant, and would as a single factor not give rise to any trouble, but it is repeated every few minutes for a period of weeks and months, day and night. Such an interference is, as we see, not at all injurious to the amniotic membranes; a non-vascular, non-sensitive, fibrous and somewhat elastic structure. But how different is the case with the soft, friable, highly vascular and sensitive placenta. Such an interference is certainly well adapted to bring about harm. The blood-vessels which are constantly unduly dragged upon are liable to undergo changes, such as atheromatous degeneration, the formation of miliary aneurisms, etc. It is a fact that it requires very little force to rupture a vessel so degenerated. That such pathological changes as indicated above do occur, is stated by Gendrin, Simpson and others. We meet with atrophy, changes of

form, complete or partial separation, etc., of the placenta.

When toward the latter months of pregnancp, the intermittent uterine contractions become more powerful after pathological changes have been well established, especially in that part overlying the os, there must certainly be great danger that the changed and weakened blood-vessels are finally torn under the pressure transmitted through the liquor amnii. If such tearing has occurred, a spontaneous closure of the divided vessels will be more difficult than under normal circumstances, *i. e.*, in healthy vessels, because vessels which have lost part of their elasticity by atheromatous changes, or otherwise, will not as readily close by contraction and retraction.

It is recommended, as the first and most important step, to stop hæmorrhage in placenta prævia, to puncture the membrane and let out the liquid amnii. All the authorities seem to agree that this will generally tend to control hæmorrhage to a great extent. The good result obtained by puncturing and letting out the fluid, speaks very much in favor of the above theory, because in evacuating the liquor amnii we do away with hydrostatic pressure in the interior of the uterus.

The pressure exerted now in consequence of uterine contractions, is not transmitted to every direction and with the same amount of force; it is, on the contrary, transmitted only along certain long axes of the fœtus in utero, which, at the time when puncture is usually practiced in placenta prævia, has not yet descended so far that its head rests and makes pressure directly over the os; if it does it will block up the source of hæmorrhage mechanically, which cannot be accomplished as long as the amniotic membranes are complete and filled with fluid. The above theory also explains why hæmorrhage in placenta prævia is synchronous with uterine contractions, in contra distinction to post-partum hæmorrhages, which come on when the uterus is relaxed.

It appears to me that the above theory should recommend itself favorably, because it is based on a recognized fundamental law of nature, that of hydrostatic pressure, on the recognized fact of the intermittent uterine contractions during the greater part of pregnancy, and the changes which we observe in tissues when they are exposed to small improper influences continued over a long period of action.

COMMON COLDS.

BY A. NOEL SMITH, M.D., DOVER, N. H.

When an individual has "taken cold," as is said, there is certainly a departure from a healthy or normal condition. Although most people have contracted a cold many times in the course of their lives, and had no structural disease as a consequence; yet it is to my mind not only erroneous but dangerous to entertain a belief, as many, more especially non-professional people, are apt to do, that a cold scarcely ever has sequels of a serious nature. And this error in belief has destroyed the lives of many.

No person, it is true, dies merely of a cold, as long as it is nothing but a cold simply; but when, from inattention and neglect, it results in certain diseases which at once suggest themselves to the mind, a cold may, and often does, indirectly prove fatal. "Colds destroy more than plagues," was the answer of a physician to one of his friends, who in reply to an inquiry as to his health, said, "I am very well, having nothing but a cold."

Another error into which many are apt to fall is, that colds require no treatment; and I have heard of individuals who not only considered colds as free from danger, but even thought, or pretended to think, them whole some and promotive of good to the organism in some way which they could not explain. No doubt a man had better have cold than a more grievous disease, but it must be infinitely better to have neither.

It is unnecessary to note the symptoms of a cold; all are only too familiar with them. Colds seem to be of no certain duration or continuance; and many have been the remedies employed to cut them short in their course. Large draughts of cold water; hot water; hot brandy; whisky; hot lemonade; gin; eating heartily, or "feeding the cold;" fasting, or "starving" it—all have been tried with variable results.

Neglected colds may be, and are, responsible for many affections which afflict us. We meet every day in our practice some form of the many throat troubles, so common in this changeable climate, which are brought on by exposure to cold and moisture. Very few people are exempt from catarrhal affections of some portion of the respiratory tract. Perhaps acute bronchitis most frequently results from taking cold. Of course every case of such disease does not have this common origin; as bronchitis frequently occurs in connection with other diseases, and also arises from traumatic causes.

Not only may cold be responsible for a catarrhal process in the larger bronchial tubes, but the process may extend downward, developing catarrhal pneumonia and caseous phthisis. Then, although croupous pneumonia depends upon a specific element for its etiology, and is therefore a self-limited disease, persons predisposed to this affection by constitutional vice may find exposure to cold acting as an exciting cause at any time.

So long as the results of a cold are manifest in the larger bronchial tubes only, perhaps there is not much to fear; but when the smaller tubes become involved, there is everything to fear; for continuous collapse of the air vesicles from obstructed bronchi must end in caseous phthisis.

Now seeing these thing are so, and that the dangers to the human economy are so numerous from neglect of the so called "common colds," what is the inference to be drawn? Evidently this: that we ought to strive in all possible ways to lessen these dangers by prophylaxis, living ourselves, and teaching others to live—especially in this changeable climate—in such a manner

as to reduce the number of colds contracted from time to time to the lowest possible number. This can be accomplished only by giving close attention to all hygienic rules. In the first place, a person must have good and abundant food, at regular intervals, in order to be well protected against the arrows of disease. The clothing must be such as will afford equal warmth to the surface of the body and the extremities. It must be comfortable and easy, and not interfere with sufficient perspiration over the surface of the body. The bad results from chilled extremities and cold feet can scarcely be over estimated. The importance of proper clothing and the necessity of changing with the seasons are well illustrated in the lower animals. The horse changes his coat in the spring and autumn, and in the winter it might be said he has a double coat. The birds moult their feathers in the fall, and the new feathers thicken as winter comes on. The neck does not require so much protection as the body below this point; neither do the head and face. It is a mistake to muffle up the neck too much, especially when walking, as this part is richly supplied with blood-vessels, and does not chill easily.

Again, pure air is essential to the maintenance of health. I firmly believe that in order to enjoy the greatest immunity against colds, one must accustom himself to be out of-doors in all weathers, and so long as he is protected so that he will not get wet feet, or get wet through, always remembering to keep the mouth closed, and to breathe through the nose wholly, there is no more danger of catching cold out-of-doors than in.

Another prophylactic measure consists in proper and continous expansion of the lungs. As I have intimated above, certain forms of phthisis and pneumonia will result from the inflammatory condition established by collapse of the air cells of the lungs, on account of obstruction of the bronchial tubes. Now, this result may be avoided very frequently by keeping the lungs, especially at the apices, well inflated with pure air. I believe this process to be one of the most valuable in the prophylactic management of common colds; as I have known persons who, previous to systematic deep inhalations of air, were afflicted often with colds, and thereafter were seldom troubled. And not only is such a course valuable as a preventive, but an established cold may often be cleared up by persistent and frequent exercise of the respiratory muscles.

To conclude, as so many and grave diseases may and do have their origin in the common cold, and as guarding against and preventing disease is admitted to be far better and more philanthropic than to cure it when already established, let us endeavor to educate our communities in every prophylactic measure that experience of ourselves and others may suggest, and thus assist in the prevention of suffering, and in the prolongation of human lives.

Now is the time to subscribe for the WEEKLY MEDICAL REVIEW.

OBSERVATIONS ON THE SECRETION OF BILE IN A CASE OF BILIARY FISTULA.

In this paper, A. W. Mayo Robson, "Proceedings of the Royal Society, Vol. XLVII" gives an account of the observations made upon the biliary secretion in a patient with obstruction of the common bile duct, and in whom an artificial biliary fistula between the gall bladder and external surface had been produced, through which the whole of the bile was discharged for fifteen months. During this time the digestion was unimpaired, bowels regular, without the use of aperients, and the odor of the fæces did not differ from that of a healthy motion. Menstruation ceased while the fistula was patent, but became regular and normal as soon as the bile was again turned into the intestine by operative interference.

The following are the principal conclusions which Mr. Mayo Robson draws from his observations:

1. The bile is probably chiefly excrementitious, and, like the urine, is constantly being formed and cast out.

2. Though the bile probably assists in the absorption of fat, its presence in the intestine is not necessary for the digestion of such an amount of fat as is capable of supporting life and keeping up nutrition. Much fatty matter in the patient's food did, however, produce a marked effect—a sickly feeling, loss of appetite, and more fat than normal in the fæces.

3. Increase in body weight and good health are quite compatible with the entire absence of bile from the intestine.

4. The antiseptic properties of bile are unimportant; this was tested only by the character of the fæces, which neither by odor nor aspect indicated any irregular fermentative process for the fifteen months during which no bile passed into the intestine.

5. Whatever little antiseptic quality bile may have is probably derived from its admixture with the gall-bladder fluid.

6. The supposed stimulating effect of the bile on the intestinal walls is not necessary for a regular action of the bowels.

7. The quantity of bile excreted in the twenty-four hours during health in a person of average weight may vary between ℥39, ʒ4 and ℥25, ʒ6, with an average of ℥30; ℥2½ of this is due to the fluid secreted by the gall-bladder, as determined in a case of the author's, in which an operation for the relief of a ball-bladder distended by gall-stones, with stricture and occlusion of the cystic duct, was followed by a fistula of the gall-bladder, from which a clear and somewhat viscid fluid issued, containing no bile constituents. This was held to be the normal secretion of the gall bladder.

8. More bile is excreted during the day than at night, the excess varying between ℥5 and ʒ3.

9. The excretion of bile seems to go on constantly and with great regularity.

10. The excretion is apparently not materially influenced by diet.

11. The pigment of fresh human bile is biliverdin, the color of the flesh bile was always green.

12. The supposed cholagogues investigated seem to rather diminish than increase the amount of bile excreted. These drugs were:

a. Calomel; grs. 5 at 7 p.m. caused a slight aperient effect the next morning, but the amount of bile excreted within ten hours after the administration was less than the amount for the ten hours before the drug was given, by over ℥2.

b. Euonymin, gr. 4, less bile was excreted in the ensuing four hours than in the four hours before administration.

c. Rhubarb, ℥½ and ℥1 of the tincture could not be said to cause any increased flow.

d. Podophyllin was given on one occasion, and no cholagogue effect was noticed.

e. Carbonate of Soda, in the form of ærated soda water, was given, and produced in two hours a maintained increased flow, not succeeded by a marked diminution.

f. Iridin; gr. 4, apparently increased the flow temporarily (though a greater flow was observed at the same time of the day on other occasions when no drug had been given), but without augmenting the total quantity in twenty-four hours.

g. Turpentine, ♏. 15 given in capsules every four hours. Although an increase was apparent on the second day, yet the daily amount of bile discharged in the twenty-four hours was not so much as on many days when no turpentine was being given. The odor of turpentine was perceived in the bile soon after its administration.

h. Benzoate of Soda caused no positive increase in the flow of bile, bontrary to the results obtained on dogs by MM. Prevost and Pinet.—*Medical Chronicle.*

Cardinal Points in Bacteriology.—The words germ, bacteria, microbe, schizomycetes, are used in our present literature almost as synonymous terms, but microbe seems preferable to germ or bacteria, and schizomycetes is a better scientific term than either.

That these are unicellular, and assimilate nourishment, seemingly by absorption in the media in which they live, but, they must transform (alter) the foods found proper, and yet unfit in nature, for their use and appropriation.

Bacteria living on dead matter encounter no living resistance, whilst those feeding on living tissues, or fluids in living tissues, meet the living cells of the body and have to combat them.

That the diastases secreted by the various beings, whether highly organized, or unicellular and microscopic, have something in common as to their respective objects, and their properties of transforming matter.

The role of microbes in the world is complex and necessary, though some are injurious. They act as scavengers, return to the air and water the organizable elements abstracted daily by the vegetables of the globe, and indirectly by animals, and indispensable to life.

The bacteria that invade living organisms which happen to be fit for their nourishment and growth are in a sense parasites just as much as the tapeworm is.

Spontaneous generation of living organisms, no matter how little, is a fallacy.—*The Bacteriological World.*

PUBLISHERS' NOTICES.

Medical Books.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather binding. Published by Birmingham & Co. 1882. List price, $5.00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

J. H. Chambers & Co.,
914 Locust Street, St. Louis, Mo.

Popular Health Resorts, Lebanon, Mo., and Eureka Springs, Ark., reached via The Frisco Line. For illustrated pamphlet giving full particulars, address D. Wishart, Gen'l Passenger Agent, St. Louis, Mo.

Missouri State Medical Convention.—The Missouri Pacific Railroad will carry delegates to this Convention which is to be held at Excelsior Springs on the 19th inst., for one fare and a third round trip. This road will make connection with the Chicago, Milwaukee & St. Paul Railroad at Kansas City, which is but 25 miles from the Springs. It is unnecessary for us to state that the Missouri Pacific has the grip on all the modern appliances for public conveniences, and everything will be done for the comfort of the delegates.

Warner's Therapeutic Ceference Book.—It contains many items of information respecting weights and measures, metric system, equivalents, directions for prescription writing, an alphabetical list of the most commonly used drugs, minimum and maximum doses for adults in apothecary weights and in the metric systhem, the common name of the drugs and their physiological action; hints respecting poisons and their antidotes, divers tables, directions for making post-mortem examinations and medical formulary; alphabetically arranged, useful for diseases extending through the alphabet from abscesses to worms. These are only some of the subjects embraced in the small duodecimo. It will found a useful and practical companion for the busy physician. Published by Wm. R. Warner & Co., Philadelphia.

ORIGINAL COMMUNICATIONS.

PRESIDENT'S ADDRESS.
RAILWAY HOSPITAL DEPARTMENT.

BY W. B. OUTTEN, M.D., ST. LOUIS,

Delivered before the National Association of Railroad Surgeons, at Buffalo, N.Y., April 30, 1891.

The progress of the railway has ever been a fruitful theme for the political economist: its extent; its influence upon the social body; its capacities for creating and molding centers of population; influencing every avocation of life, changing the physical face of nature; annihilating distance, changing communities by intercourse, spreading energy and intelligence, developing every region brought in contact, producing wealth in all directions, the best elements contained in our race. Full of the most powerful elements which constitute our existing civilization: a veritable world in itself, employing millions of persons in its operation. No position in life being free from its influence, professions used in in a more extended manner than ever before; changing and adapting by the sheer force and power contained within them, the character of professions used by them,, according to the growth, wants and protection, enlarging the scope of action of certain professions and molding them in spheres both important and extensive. The application of immense power, rapidity of motion, and multitudinous adaptation of machinery necessarily incurring danger by defying many of the laws of nature, its operations creating injuries of a definite and almost specific character, the medical profession is needed and required and molded according to the exigencies of its operations.

The history of the medical profession's connection with the railway has been one of slow and doubtful recognition, viewed in the light of a necessary evil; always coming with seeming misfortune; judged by a pre-existing prejudice; grudgingly rewarded, and employed almost amidst uttered or unuttered protest. Being necessary and expensive, the keen business executive of the railway has used various devices to economize and still command the profession; using the influence of a doubtful position, using adroitly the influence of that most potent, over-estimated, vanity-producing element, soul-soothing and far-reaching unknown quantity, a pass.

Made collections for well earned fees arduous and uncertain, using the profession at times to warp the truth, which always proved detrimental to both, engulfing individuality, ignoring and changing the nature of the surgeon's avocation from an honorable surgical standard to one of doubtful legal cast. Appreciated and treated capriciously, difining his true position rarely, the intermittent character of his service leading to this. Even now in a goodly number of instances while employed ostensibly for his ability from a professional point of view, but too frequently used with this unconsidered for work in fields foreign to the true nature of his profession. Some of the profession think that the railways employ them for the purpose of defrauding justice, controverting truth, and exercising functions of a general questionable character. There is no middle or doubtful course for the profession; if they do not maintain the noble dignity of their calling certainly none outside are likely to. No physician in the service of a railway company can afford to lose his individuality, employed for specified purposes professionally, and to be of the best use must exercise them with strict conformity to this; the very instant he swerves from the real standard of his calling his effectiveness ceases, and it is only a short matter of time when distrust becomes a potent factor, only to ultimately be an object of suspicion and contempt by those employing him. The physician in the service of the railway company in order to be of genuine use must ever subserve the real purpose of his avocation. True and honest as regards his ministrations, employed purely for professional capacity to accomplish solely surgical results, ever maintaining honorably the duties required from both patient and company. No railroad can afford to sustain a weak, vacillating, dishonest official, and no honorable, high-minded, zealous and truly devoted physician can afford to serve a company except upon the true and noble nature of his calling. The true physician ever estimates the real value of his services, when he underestimates his value the world views and judges it according to the estimate so placed. The really valuable man is the one who is true to his calling, honest in his administration, unswerving in his devotion to the true standard indicated; honesty, industry, faithfulness, humanity, are its foundation elements; these ignored the true physician ceases to exist and becomes a servile creature to venal circumstances. The best of talent manage the railways of our country, and in many instances the proper professional standard is understood and demanded, and every chance given to the surgeon to develop and utilize this capacity in a proper and correct manner. Appreciated, trusted, and employed solely by the virtue of his standing in the profession, he has become an economical element in its managements. Placed in positions of executive work, and granted the privilege to grow and develope along with some of the great systems now being evolved. It has been the West first to fully appreciate his services; necessity first indicated the procedure, necessity and experience has continued his growth and expanded his usefulness; not until, however, the railway had extended over trackless plains, or wound their way among tortuous canons of mountain ranges, in thinly or unpeopled regions was he acknowledged as an integral part of a railway. He is now acknowledged as an essential factor in the management of 39 lines and systems, employing him as chief surgeon and managing departments in their professional capacity over nearly 76,000 miles of railway.

Thirteen Hospital Departments upon some of the largest systems in the country owning some 25 hospitals, and treating annually over 136,000 sick and injured em ployes. All of these departments are self-sustaining and supported by assessments levied upon their em ployes, this being done in a majority of instances upon an assessment of 25 and 50 cents a month. They enable the employe to be moved from unhealthy regions to more healthy ones, concentrates the injured and supplies advantages not otherwise to be obtained. The management supply passes to and from any part of the line, as deemed best by the surgeon in charge of its hospitals and emergency stations. Employes are brought to hospitals from malarial portions of the country to non-malarial, and it is placed in the power of its humblest employe to change from bad to more healthy and salubrious climes; places it in the power of the hospital department to accomplish cures by the fact of this change, which otherwise could not be accomplished. The departments are enabled to send the consumptive to climes better fitted for his treatment and cure, which a lack of means on the part of the employe would oftentimes debar. The employes assert that they save money in the assessment which constitutes a hospital fund, as prior to their establishment sick and injured employes were helped out by co-employes and friends contributing to subscription lists carried about by the generously inclined, and that it was not uncommon for them to give, under such circumstances, fifteen, twenty or more dollars a year for such purpose, but since the establishment of the hospital departments, those who needed assistance in this direction rarely needed it now, as 25 and 50 cents a month paid in assessments entitled them to the best care and treatment, and they were under obligations to no one. That while some might doubt the right of assessments, still, this point was not now considered, but how much benefit was rendered those who really needed it; while some might not partake of its benefits, many good and worthy persons were accorded the best of care and attention without humiliating circumstances connected with it; all diseases except those arising from vicious acts being treated. Prominent specialists being employed by many of the hospitals, the oculist, aurist, throat and lung specialists, dermatologist and bacteriologist, a regular staff of surgeons, enabling the employe to receive treatment at the hands of some of the best men in the profession at no extra cost. Prescriptions filled and sent out, trusses, elastic bandages, preventive measures, vaccination, employed in many thousand cases; the experience acquired by its surgeons in treating a great number of railway injuries enabling them to accomplish better results than when a surgeon only treats them in isolated instances. That the departments are well supplied with means, and its hospitals possess paraphernalia and armamentariums of superior stamp and not confined by necessities and rules governing elemosynary institutions, have subsistence departments of the best and highest order. They have stood the test of time (even amid strikes) for many years, and must certainly possess merit, as the compulsory elements of assessments would naturally produce prejudice unless some redeeming virtue was constantly manifest. The smallness of the assessment is not deemed a burden by the employes, and the departments are viewed as a benefit. They relieve the States through which the roads pass in many cases of pauperism, as without them many persons would be thrown upon the care of the State. That they have been the means of saving innumerable lives and by judicious advice and preventive measures saved the employes both time and money. Thay they, these departments, are the best possible form of charity, as work and independence are involved, and not idleness and dependence; that the union of the railway company and the contributing employes has evolved an institution of greater benefit, at less cost to its beneficiaries, than any similar institution yet submitted. That by an interchange of patients from one system of hospitals to another, their benefits could be greatly broadened, the consumptive and malarious patient sent to non malarious and mountainous regions, the rheumatic and catarrhal to more congenial climes of the south, and by this climatic interchange many worthy and valuable lives benefited and saved at no extra cost to either hospital department; that these hospital departments managed for the humane purpose intended, and in close alliance with the claim departments, recording a complete history of every injury, giving truthful and early statement, being cognizant of the real condition of the injured; constitutes the best element of settlement and a corresponding lessening of litigation being essentially economic and humane in their basis. That with the powerful aid of the railway with well equipped and properly conducted hospitals there is no difficulty in getting the employe to appreciate their advantages and patronize—the smallness of the assessment neceseary to maintain the extended character of the treatment as exemplified in the employment of a good staff, specialists, trained nurses, the character of paraphernalia and armamentarium, the character of subsistence, the extended climatic change, the results which experience gives, certainly make them competent to be not only useful and desirable, but as complete with therapeutic elements as any system of medical aid could be well suggested. A well organized hospital department with complete medical staff is susceptible at but little expense to be utilized in all measures pertaining to prevention. Attend to hygenic elements pertaining not only to the individual, but to the physical condition of the road, give guidance to the individual as to the best manner of caring for himself, train them in the way of using that which is best for their health and avoid those things which are hurtful, in no field can be greater humanity shown than in this, in no field can be greater good accomplished, as it means the saving of time, money and suffering to many persons that could not be taught or reached other than in the manner thus indicated. Utilized to study the unhygienic surroundings environing

the road, analyze all waters, indicating those which should be used and those which should not be used, the proximity of the water supply to doubtful and dangerous places, remedy unhygenic conditions as regards cars, shops, buildings and other places, and inspect every source from which ill-health seems to result. The proper sanitary work upon any road would not only be for the better being of the employes, but the community,and in time of epidemics be a most potent force in accomplishment of results beneficial to the State at large. With accumulating intelligence on all sides and the natural tendency toward the organization of classes in various protective associations—the result of conditions previously existing—makes it imperative upon the part of corporations to study the impelling motives which caused, and the remedy best suited. The broadest and most humane course offers the least chance of differences; humanity is ever a means which, when well used, produces results both gratifying to the user and receiver. The rank of employes in the railway service abound with persons of hard, good common sense, and as thoroughly appreciative of that which is just and humane as any class of men men could be; discerning, practical and generous, appreciative of merit, competent by unceasing contact with many people and many places to be their own judge, self-reliant, quick to discern virtue, and advertise the fact as any class of persons. We find after fourteen years of experience in this character of work and frequent talks with all classes of employes that they naturally (the same as all other men) predicate their appreciation of the various plans employed by the railway for economy and relief, be it insurance or hospital department, upon their cheapness and extent of service. Naturally desiring to manipulate their insurance by and through the various organizations with which they are connected or accident companies just in proportion to their own desire and ability. If compelled to pay and aid in sustaining any of these institutions of course they select the class which costs the least money and gives according to their ideas the greatest amount of benefit. Their own protective associations already formed and embodying excellent plans of insurance, both as regards life and permanent disability, makes them favor the plan which benefits them most in their frequently dangerous avocations, hence the popularity in certain regions of country of a well conducted hospital department. It can be stated with almost absolute certainty if the hospital department were deemed a burden and did not possess merit they would have soon ceased amidst most violent and determined protest; that they still exist and continue in growth plainly indicates that they are deemed of value by the employe, for compulsion is their basis which readily and ultimately arouses all that is combative when deemed unjust. We can state with perfect truth that the employes view them not only with decided favor but have expressed not only a willingness to contribute more in the event it is needed, but have stood increased assessments upon more than one occasion. Let but the railway honestly endeavor by kind treatment and humane effort to better the condition of the employe in any direction and it will at all times be met with intelligence, hearty, earnest and honest appreciation. If the hospital departments are extended so as to include not only all the best known means of cure and treatment, including the extended climate interchange of patients from one department to another, the establishment of a perfect system of hygenic effort considering humanely as far as possible the well being of all employes, which could be done at little cost to either and great good would certainly rebound. It would be economy for the railway, benefit for the employe, and involves the best elements of the humane in a large and generous way, not burdensome to any concerned, obtaining the greatest benefits at the least possible cost, co operative in every sense in which both parties do their best according to their respective ability.

TRANSLATION.

FROM THE GERMAN.

Translated for the REVIEW, by FRITZ NEUHOFF, M.D., St. Louis.

CONCERNING CURETTING OF THE UTERUS IN PUERPERAL FEVER.

It is in reality wonderful that only in recent times so many voices have been raised in favor of curetting the puerperal uterus. One would naturally think that, as in surgery, "scraping out" is indicated, when simple cleansing and washing are no longer efficacious.

If we admit that puerperal fevers arise from cocci invasion we must form two conclusions as to treatment. The first, which is prophylactic, is to prevent the cocci from coming to, or into, the puerperal patient. The second conclusion is to remove or render harmless such germs as may have entered the parturient canal. To accomplish this we wash out what germs we can, and employ disinfectants to destroy these germs which have already entered too deeply into the tissues to be washed away. That this latter procedure may, under certain circumstances, be successful has been experienced by all. Theoretically, we must admit the curability of puerperal infection, provided we know the exact time when the cocci enter the genitals. For douches and cauterization employed immediately or soon after the time of invasion would be bound to cure.

We have analogy for the above reasoning in our surgical practice. If during an operation for pyosalpinx, a little pus escapes on to the peritoneum and we immediately wipe it away thoroughly, no trouble will result therefrom. On the other hand, if, during the tedious removal of an adherent suppurating cyst, the intestines become bathed in pus which it is impossible to remove thoroughly, the result will be the death of the patient from peritonitis.

As it is in surgery, so it is in puerperal fever. The great difficulty, however, consists in the fact that we can not determine the exact time of infection, and therefore are unable to follow it immediately by disinfectants. For the process of decomposition a definite time can be set, but in case of infection by streptococci, (which alone are concerned in puerperal fever) the deleterious effect occurs remarkably soon. Death from puerperal fever has been compared to apoplexy in regard to suddenness. I myself have known a patient, on whom total extirpation of the uterus had been performed in a clinic where puerperal fever cases existed, die within 37 hours after operation. Streptococci were found in the peritoneum.

In laparotomies also, if septic infection has occurred, the patient, as a rule, will within a few hours after operation show symptoms indicating to the experienced surgeon the gravity of the prognosis, even before the thermometer registers a rise of temperature.

We need not wonder then, that a few hours suffice to render a puerperal fever case incurable, and that even in our clinics (where temperatures are taken three time a day) we frequently come too late with our remedial measures.

The question naturally suggests itself: Have we not a procedure more efficient than the ordinary douche? Can we not make up in energy what we have missed in time? Can not the proper method be substituted for the proper time? The surgeon too, frequently comes too late to obtain primary union, to perform a primary operation. He must then remove more tissue than in primary operations. He curettes and burns, removing and destroying that which appears dangerous to him. It seems logical to apply a similar therapeutics in puerperal fever.

When the washing out proves ineffectual, undoubtedly the cause of the disease has not been removed. For this there may be one of two reasons. Either the patient is already septic and too far gone to render any treatment, except that tending toward enthanasia, appropriate. Or, there is a seat of disease, a breeding place for germs in the uterus, whence always new streptococci arise. If we remove this seat of disease, where can more cocci come from? "Therefore," says Brown, "if we curette the uterus we remove at once the source of infection which is the cause of the disease."

Brown has acted according to the above principles. The therapeutics of curetting seem particularly supported by sound logic, when you divide puerperal fevers into pyæmic, septicæmic and sapræmic. The latter variety is characterized by putrefactive processes in the uterus; saprophytes and the ptomaines having entered the blood produce the fever. No doubt to this variety the complete removal of the putrefied contents of the uterus must bring about a cure. But inasmuch as the sapræmic variety is from its very nature the least dangerous, it follows that according to Brawn curetting ought to be practiced in the lightest form of the disease.

French authors regard curetting of the uterus as a more powerful remedy as a kind of last resort.

I wish to bring the arguments in favor of this method of treatment under discussion. If they appear to be sound, it devolves upon us teachers and clinicians to give the treatment a trial, and to publish our results, be they favorable or unfavorable. For it is of the utmost importance to establish whether this method of treatment is life saving or whether it is detrimental.

Persuaded by theoretical considerations, I, twenty years ago, curetted the puerperal uterus. I did not report my cases because the curetting was indeed always done too late. Recently I have again done the operation in a number of cases concerning which I will give a separate report.

I concede Braun's statement that curetting the uterus is not difficult to perform, and when done by one possessing reasonable skill is not, as a rule, dangerous. Nevertheless I must advise against this method of treatment. I adopt this course on account of my experience in several cases and the following considerations:

In the first place the sapræmic puerperal fever can not be diagnosticated in the beginning from streptococci infection. Later on, it can, of course, when the one patient gets well and the other one dies; or at least when the prognosis in one case becomes positively good, in the other positively bad. I have seen a number of cases of fatal infection in which the fever began as late as the fifth or even the eighth day. These cases, though presenting the symptoms of endometritis, had all appearances of being of a very light character. I do not think that the diagnostic points mentioned by Braun enable us to recognize sapræmic fever at the outset, especially as the practitioner seldom sees the beginning of the affection. It is only through watching the case and noting the effect of treatment, that he arrives at the true nature of the disease.

Then, by curretting the womb, you do not attack the real enemy, but as it were, make a diversion, leaving the headquarters unmolested. Are the remains of the decidua the seat of the fever? Are the contents of the uterus the substratum of the disease? Is the affection so superficial? Does it consist simply in a septic wound? No! This disease lies much deeper; mostly in the parametrium. To-day, as years ago, when I first wrote on puerperal fever, I believe that the infection starts chiefly from the cervix. In the first place, it is examined most frequently, and cocci are most readily deposited on it. In the second place, it is most constantly subject to lacerations. The most potent reason, however, is the parametritis at the base of the broad ligament, in the immediate neighborhood, nay, even in the continuity of the cervical wound. If infectious material is deposited on the surface of the dilated cervix, and the cervix contracts, the infectious material is deeply buried out of reach of injected water. Immediately thereafter the loose tissue of the parametrium becomes affected. Read the post-mortem records, and you will see how quickly the inflammation starts in the

parametrium. In a few days there occur large abscesses and suppurative lymphangiectases at the border of the uterus. In the meantime the uterus itself remains quite unaffected, the muscular coat white, firm, not infiltrated, the site of the placenta normal. Only in a few places a diphtheritic patch extends from the cervix into the uterine cavity. This septic endometritis may also be secondary; I saw it arise in the fourth week in a pyæmic patient in whom, on account of the bad prognosis, local treatment had been ultimately suspended.

If we wish to remove the seat of the disease, we would have to make large incisions into the parametrium to allow the pus to escape, just as in suppurative periostitis we incise the whole leg. Or else we would have to remove the whole septic uterus. That would be rational. Simply removing a few decidual remains does not get rid of the seat of the disease. The decidua can be rendered sufficiently harmless by thorough antiseptic washing. It is not the few cocci in the decidua, but the large numbers of them which are contained in metastatic inflammatory infiltrations, often far distant, which are the real source of danger, etc., the substratum of the disease, Braun, as well as myself, admits that but very little after all is removed by the curette and subsequent washing.

Some cases have always recovered, both under the present antimycotic treatment and under the old symptomic treatment. The method of cure is effected by the following process: The puerperal fever becomes local, an exudation is formed, the streptococci œdema becomes encapsulated, pus is formed. Why this sometimes happens can only be explained by the variable virulence of the cocci. Though the streptococci afterward obtained from the exudates are morphologically identical with those of the greatest virulence. If we admit that encapsulation is the beginning of a cure, we oppose this encapsulating by curetting. But we saw above that the disease is not situated in the uterus; we fight, therefore, on the wrong battlefield; while the cocci continue to multiply unmolested deeper in the tissues. Rest, the best antiphlogistic, is not granted to the inflammation. Curetting stimulates the lymphatic circulation and thus makes the disease worse.

The question may be asked, how do I account for the many cases which Braun has cured by curetting, and the fall of temperature which follows the scraping?

I answer: He has only curetted light cases, which would have gotten well without this operation. The accompanying washing also helped to cure. Moreover, the application of tincture of iodine, which like ergotine causes the uterus to contract, diminishes the caliber of veins and lymphatics and limits absorption.

Should curetting become a universally adopted method of treatment it would, no doubt, in hands less skilful than Braun's, and applied to cases less carefully selected and diagnosticated than Braun's, be the cause of much mischief. Therefore I say, let us be satisfied with the old therapeutics of "washing out," which is indeed the most effectual part of the Braun method of treatment.

For a while I was of the opinion that in one case at least curetting is rational; namely when after washing out the uterus the temperature falls and afterward rises again. This rise I presumed to be due to new growth of germs whose ptomaines entering the circulation caused the fever. However, experience has taught me that curetting is utterless usely in these cases, and that at any rate no definite indication for its employment can be determined. The decline of temperature in the above instance is due to the absorption of antiseptics and the removal of the absorbable septic fluids from the uterine cavity. If the fever again augments, it indicates the progress of the previously started disease in the depths of the tissues.

Prescribing in the most unfavorable cases of puerperal fever the uterine cavity is so empty that the water returns from it perfectly clear, while the virulent cellulitis is steadily progressing, until it finally terminates in sepsis and death.

If you ask, shall the curette then never be applied to the uterus, I reply that now, as ten years ago, placental remains when diagnosticated should be scraped out. It is precisely the undecomposed state in which these remains are often found, and the fact that they sometimes form decidual polypi, which proves that they are not always a source of danger. How often do placental shreds, either fresh or decomposed, pass spontaneously from the uterus after a number of days without having occasioned any fever.

It is not, therefore, for fear of sapræmia and endometritis, but rather to prevent hæmorrhage and the pernicious consequences of subinvolution, that now, as formerly, we remove all placental remains which have been diagnosticated. The diagnosis is easy: if secondary hæmorrhage occurs we investigate; if the os is patent we palpate the uterus; if the examination is painful we anæsthetize and dilate. Our object must be attained, namely, to determine whether the uterus is empty or not.—H. Fritch, in *Deut. Med. Woch.*

Ringworm.—Ringworm of the body is generally amenable to treatment, judging from the numerous domestic remedies which act so successfully. Sometimes, however, an obstinate case is encountered and recourse is had to the physician. In such cases a rapid cure is desirable, and the application of the following, once daily, for two or three consecutive days, will generally prove successful:

℞ Hydrarg. bichloridii, - - - gr.ij.
Tinct. benzoin co., - - - ℥j.
M. Paint over affected parts.

Care should be exercised not to paint too large a surface, as the above mixture is toxic. If an excoriation exists it should not be applied, as it is irritating to the wounded integument.—*Medical Chips.*

Physicians and other readers of the Review should not fail to examine its advertising pages, where much that may prove of interest will be found.

WEEKLY MEDICAL REVIEW.

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TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this Review, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings, carefully prepared in ink, accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the St. Louis Weekly Medical Review, 520 Olive Street.

All letters containing business communications or refering to the publication, subscription, or advertising department of this Review, should be addressed to The Medical Review Association, 914 Locust Street, St. Louis.

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SATURDAY, MAY 23, 1891.

American Medical Association.
General Sessions.

What promised to disturb the equilibrium of the convention was summarily disposedof by a preliminary report from the Board of Trustees. We mean the question relating to the removal of the office of publication of the *Journal.* This report was prepared and presented early in the morning of the first day and had the happy effect of forestalling any debate upon that subject. We did not think that the annual addresses delivered before the general sessions were quite up to the usual standard of excellence.

Of course we do not mean to include in the above, President Briggs' address, for this was a splendid effort and during its delivery excited considerable enthusiasm. The address was replete with happy sentiment. Among other excellent admonitions he reminded his hearers that they were met solely for the promotion of science and for the good of the human race, to maintain the honor and dignity of the profession, and to hold aloft the flag of honorable medicine. They were there to lay their contributions, the results of study and observation,upon a common alter for the common good; to worship at the sacred shrine of medicine and to renew their fealty to the noble profession to which they had devoted their lives and linked their fortunes. As physicians they had an almost superhuman mission to fulfill. The chief object of their professional work was to preserve life and insure health. The good of their ambition and desire was almost at the end of human capacity. It was their province as well as their desire to know all the secrets of natural organization. They would have the formative crystal and the germinal spot made transparent. They would enter the microscopic world and witness the wonders therein revealed, and would, if possible, search into and unraval the very mysteries of the vital principle. To this perfect knowledge did they aspire. It was doubtful if man's intellect, great as it was, could ever compass all that he so earnestly desired; yet, by constant and faithful work, he might approach nearer and nearer to its consummation. In every part of the habitable world blessed with the light of civilization, active, busy members of the profession, endowed with high culture and incited by the noblest resolves, were enthusiastically engaged in unraveling the mysteries of disease and seeking means and methods of treatment for the mitigation and relief of suffering and the prolongation of life. That the full benefit of the labors of American physicians might be attained and utilized, it was essential that the members of the profession, scattere over an area of country of almost inconceivable magnitude, should be brought into associated action and be organized into a body whose influence might be exerted over the length and breadth of the land, until a correct and noble sentiment was engendered in the mind of every member of the profession.

Nothing farther transpired in the general sessions outside of the usual routine, save the memorial from the medical society of West Virginia, in which the memorialists asked consideration, upon the part of the American Medical Association, of the question as to how far the rules adapted by railroad corporations for the goverment of the surgeons in their service infringed upon the rights of the profession at large as set fourth in the code of ethics of the American Medical Association. It was alleged that large bodies of men were in the employ of these corporations, and that these men lived in widely-scattered communities. The corporations had established systems of employing contract surgeons to attend to employes and passengers injured by accident. It was also stated that these corporations had adopted rules for the government of the surgeons and of those injured which demanded that these surgeons should assume entire charge of such employes or passengers when injured, regardless of the rights of any outside medical men who might have been summoned and be in attendance upon the injured prior to the ar-

rival of the company's surgeons, even though the physician first in attendance might be the family physician of the injured person. Notice had been given in most cases by the railroad companies waiving all responsibility in respect of injuries treated by non contract men. It was assumed by the memorialists that this condition of affairs placed the contracting surgeon in direct conflict with the spirit of the code of ethics, and was an infringement upon the rights of the physician first called. The practice of accepting passes as compensation or in lieu of the regular fees was detrimental to the profession's interests by lowering the standard of surgical services, and was further demoralizing because it gave to these weathy corporations services at far lower rates than the profession charged to individuals. It seemed that if members of the profession were at liberty to make contracts to furnish an unlimited service of the kind referred to for passes, and in some cases for small fixed money payments, without affecting their ethical standing, all stigma of unethical or unprofessional conduct should be removed from those of the profession who contracted with private individuals to furnish medical or surgical services, including medicines, by the month or year for fixed sums. A special committee was appointed to sift the facts in respect to the points alleged in the memorial.

We might mention also the report from the commit tee established last year to arrange a centennial celebration to Jenner. The decision of this committee was that such a celebration should be held in conjunction with other nations if possible; if not, then independently, on May 14, 1896, but that such celebration should be rather as an honor to Jenner as a man, and to vaccination as a great prevention of disease than an attempt to discuss the scientific position and value of vaccination. The Association therefore agreed to arrange its meeting for that yerr so that it might set aside May 16, 1896, as a Jenner day, when all business should be devoted to a consideration of the man and the method.

It may be of interest to state also that the following resolution was adopted:

Resolved, That the President of this Association appoint a committee of five to memorialize Congress at its next session on the subject of creating a cabinet officer to be known as the Medical Secretary of Public Health.

SECTION WORK.

We think all of the sections held exceedingly profitable sessions. The section on surgery and anatomy as well as the section on obstetrics and diseases of women accomplished an immense amount of good work. We know, from personal observation. To us, Dr. Keen's report of eight cases of linear craniotomy was intensely interesting.

Dr. Mordecai Price contributed an eminently practical paper on the subject of "Peritonitis from a Surgical Standpoint." He took occasion to emphasize, with considerable vehemence, the opinion that all cases of peritonitis were the result of a surgical cause. Idiopathic peritonitis he chrracterized as a delusion and a myth.

But nearly the whole field of modern surgery was gone over by one or the other, of the many excellent papers, read before the section, and all of these contained many new and valuable points.

So far as we are informed Dr. John H. McIntyre was the only delegate from the St. Louis Medical Society who read a paper before any of the sections. This paper related to "Ten Selected Cases of Laparotomy," with remarks. The report was very well received and discussed by the most prominent members of the section on "Obstetrics and Diseases of Women."

The interesting, almost sensational feature of the session in this section was the reading and discussion of a group of papers on the relation of female diseases to insanity.

Papers were presented by Dr. W. W. Potter, of Buffalo; Dr. Llewellyn Elliott, of Washington; Dr. A. Van Deveer, of Albany. These were followed by two contributions of popular interest, one by Dr. Dewees, of Kansas, and the series was closed by a very able contribution by Dr. I. S Stone, of Washington. Dr. Stone had systematically investigated the present status of medical practice in a large number of the asylums of the country.

He succeeded in unearthing the fact that the superintendents of asylums, with but few honorable exceptions, felt themselves competent to treat all phases of disease among their women patients. In direct response to the inquiry, "Can the gynæcologist aid the alienist in institutions for the insane?" he had received almost uniformly a negative reply.

So far as he had been able to determine, female diseases were seldom recognized, much less treated by these superintendents, and he propounded the querry, "Why is it that insane women apparently do not have the same diseases that afflict so many sane members of their sex?"

Dr. Bryon Stanton, of Cincinnati, who had been for some time asylum superintendent, stated that the explanation was to be found from the fact that shortly after a man had been appointed as an asylum superintendent he ceased to be a physician.

Dr. Eastman, of Indiana, reported some cases in which a woman was incarcerated in an asylum for two years and had been dismissed as incurably insane, but who had been restored to health and sanity by an operation at his hands.

Dr. C. A. L. Reed, of Cincinnati, stated that he had given this question serious attention for a number of years. He was satisfied of the sound scientific basis for reform which would involve the appointment not only of gynæcologists, but of specialists in all other departments as staff officers to asylums.

He stated that the fact which had been unearthed by Dr. Stone to the effect that alienists did not want the assistance of anybody in the management of the insane, revealed an alarming state of affairs. The claim that the medical superintendent, who was generally a housekeeper, a garderner, and a jailor at the same time,

was also competent to treat diseases of the eye and of the ear and of the lungs and of other special organs, was simply preposterous. The claim, however, is made by these gentlemen, and is a clear demonstration of their pretentiousness.

Dr. Reed challenged any superintendent of this class in the country to an experiment, the results of which, he believed, would be as interesting to science as it would be startling to humanty. He challenged them to submit their patients to examination merely for the purpose of diagnosis to a corps of competent specialists representing the different departments of practice. He staked his reputation that the result would show the existence of curable diseases in many instances the cause of theinsanity, the existence of the former never having been suspected by the alleged medical Colossus, who is known as a superintendent.

The evil with which they had to contend, he asserted, was not a scientific one. It had passed beyond that point. It is now a problem in political economy, nothing more or less than the eradication of a self-perpetuating scheme of superindency which is as pernicious as was ever priestcraft in its worst phases.

Dr. Reed's brief but sensational remarks were received with cheers.

Of course these papers will all shortly appear in print, and many of them will prove of great value to those interested, but the discussion—a part of the meeting which we have always considered the most valuable—will never see the light of day as long as the association continues to publish its proceedings under the plan persued at present.

Tobacco.

Dr. Seaver, of Yale College, is waging war upon the habit of tobacco smoking, which some of the students there indulge in. He is the physician of the college and the professor of athletics, a man of science who follows scientific methods in any investigation he may undertake. He has been engaged for eight years in observing the effects of tobacco smoking upon the bodies and minds of the Yale students, and he has just published a remarkable budget of statistics.

Dr. Seavers informs the public that the students of Yale who indulge in tobacco smoking are inferior in physical vigor and mental ability to those who do not. According to his reckoning, the smokers have less lung power than the anti-smokers; they have less chest inflating capacity; they are of less bodily weight, and they are even of less height. The muscular and nervous power of the smoking students is notably and noticeably less than that of the anti-smoking. From an athletic point of view, therefore, the Yale professor of athletics considers himself justified in waging war upon the tobacco habit.

Not only in a physical way, but also in an intellectual way, the Yale smokers are inferior to the anti-smokers. The smoking habit is disadvantageous to scholarship. Of those students who, within a given time, have received junior appointments above dissertations, only 5% were smokers, and very few smokers received appointments of any kind. It would seem, therefore, that the brain powers of the smokers at Yale are far inferior to those of the anti-smokers.

The demonstrations of Dr. Seaver appear to be influencing the Yale mind. He is able to report that 70% of the senior class in the college do not smoke, that the leading athletes do not smoke, and that not a single candidate for the rowing crew is a smoker.

Young America, athletic, intellectual and ethical, can ruminate upon the Yale statistics collected by Dr. Seaver.

Insane Asylum at Fulton, Mo.

The Board of Managers consists of Dr. J. H. Howard, Samuel Watson, Esq., both of Fulton; Dr. G. Ettmueller, of Hermann, and Hon. F. L. Marchard, of Monticello, Lewis County, one vacancy existing; Col. Shields, treasurer, B. P. Bailey, Esq., steward, Mrs. Gordon, matron.

The erection of a new wing, a substitute for an old, under the direction of the Board, will be immediately entered upon, all preliminaries having been consummated.

From personal knowledge of the members of the Board, we confidently assert that the interests of the State, in liberally providing for its unfortunates in this institution, are confided to most conscientious, painstaking and faithful hands; and that the general public, especially the philanthropic, may rest in the full assurance that the manifold and responsible trusts confided to the Board are duly appreciated by it and will be conscientiously and faithfully discharged.

Missouri State Medical Association.

This Association convened at Excelsior Springs at 2 P.M, May 19, 1891; called to order by Dr. Allen, of Liberty, Chairman of Committee of Arrangement; prayer by Rev. Mr. Flagg, of Excelsior Springs. Announcements made. Address of welcome by Mr. H. M. Holden, Kansas City, one of the proprietors of Excelsior Springs, responded to by Dr. Carter, of Higginsville, in classic and poetical language. After a few preliminary motions, the president, Dr. A. B. Sloan, of Kansas City, delivered his address, embodying several valuable suggestions for the consideration of the Association. At its conclusien a committee was appointed to consider the suggestions made, and report thereupon at some session of the Association.

Greetings were ordered to be telegraphed to the Illinois State Medical Association, now in session, presented by Dr. Dickinson, as follows: "May the great river that separates be a true emblem of the strong fraternal sympathy that shall ever bind the professions of the two sister States in the common effort for the promotion of medical education and of general medical science." Then proceeded to the realization of the regular programme—first, the consideration of pneumonia. Discussion opened by Dr. W. C. Glasgow, of St. Louis, followed by Dr. C. A. Thompson, of Jefferson City, and Dr. F. A. Simmons, of St. Joseph.

HYGIENE AND THE PULLMAN PALACE SLEEPING CAR.

We note that Dr. Conn, of Concord, New Hampshire, read a paper before the Buffalo meeting of the National Association of Railway Surgeons upon the subject, "Hygiene of Railroad Passenger Cars." We have not seen Dr. Conn's contribution, but we are curious to know just how he handled the rules of the preservation of health, as they are applied to those cars which go under the name of "Pullman Palace Sleeping Cars."

It is very proper in this Association of Railway Surgeons, to take up and discuss just such subjects, providing the gentlemen constituting this body discuss the subject from the standpoint of the passenger, the individual who is most concerned in the hygiene of the sleeping cars, and not from the standpoint of the Pullman monopoly. It has, however, been clearly shown, time and again, in the history of the Pullman Company, that competitive efforts have all been systematically frozen out, have rarely ever received encouragement from the members who manage the different railroad corporations throughout this country and hence the natural inference must be that this gigantic monopoly holds the majority of the railway officials in bondage, and if there be any truth in this conclusion we cannot expect the National Association of Railway Surgeons to antagonize Mr. Pullman's ideas of hygiene.

We, however, have the greatest faith in the belief that if Hygeia, the daughter of Esculapius and goddess of health, had been asked to perform the necessary acrobatic feats in preparing for the night in a "Pullman berth," and during the same night allowed but about as much pure oxygen as would barely sustain the life of a goat in Lilliput, she, no doubt, would have very promptly condemned the Pullman Palace sleeping car as an intolerable nuisance.

MEDICAL ITEMS.

EPISTAXIS.—Mr. Hutchinson, of the London Hospital, recommends for the arrest of epistaxis, plunging the feet and hands of the patient in water as hot as can be borne. He states he has never known it to fail when faithfully employed.

MORTALITY.—In England, in every thousand births, one hundred and forty-five children die within the first year. The death rate in male children under five years of age during the last decade as compared with the decade of thirty years ago, decreased nine and twenty-six hundredths to the one thousand, while that of adults decreased but two and twenty-three hundredths. This improvement is to be largely attributed to greater care and intelligence in the management of infants.

ETHER INTOXICATION.—Ether drinking for purposes of intoxication has recently become very prevalent in Ireland, especially in the Northern Countries. It is preferred by the lower classes to whiskey, both on account of its cheapness—one drink costing one penny,—and on account of the rapidity with which the intoxication passes off, he then being able to take another dram. It is estimated that 100,000 people indulge in this practice, and that 17,000 gallons of impure ether are consumed annually. The practice has become so general that it has commanded the attention of Parliament, which will doubtless impose such restrictions upon its sale as to confine it exclusively to medicinal purposes.

DR. HARE, "THERAPEUTIC GAZETTE," AND JEFFERSON COLLEGE.—It is rumored that Dr. Hobart A. Hare will, in the near future, retire from the editorial management of the *News* to become the editor of the *Therapeutic Gazette*, Philadelphia.

Dr. Hare has recently been elected to the chair vacated by Prof. Bartholomew in the Jefferson Medical College, and the proposed new field of journalistic work will harmonize better with his professional studies. The faculty of the Jefferson Medical College is just now in quest of another DaCosta.

CORRECTION.—By the kind intimation of the Secretary of Milwaukee Society, we are informed that the "item" on page 348 of the REVIEW, in regard to the "creation of three medical examining boards" is incorrect; no bills were passed, though three were introduced into the Legislature. Also on page 349 "in regard to the prohibition of the exhibition of the pedal extremities of ballot girls." No such bill was presented.

We cannot recall the source of the statements alluded to, but we disclaim all claim to originality or invention; as also intention of unkind reflection, we cheerfully make the "*amende honorable.*"

FOREIGN CORRESPONDENCE.

LONDON LETTER.

LONDON, April 27, 1891.

EDITOR WEEKLY MEDICAL REVIEW.—I never appreciated before now to what degree of martyrdom a man must resign himself in order to qualify as a London correspondent; but I do now,—most thoroughly. Think of crawling into one's room in the early evening, *in London*, to write a letter on things medical or scientific, or otherwise prosy, when the clatter of the busy cabs, the busses, the hum of the throngs of people, and the gay and inspiriting strains of "Annie Rooney" floating up to his palatial apartments, all invite him down to join their merry ranks. Yes; one must first be a veritable Saint Anthony to be a London correspondent. And I candidly confess—as these pages will doubtless soon show—that I am not yet prepared in the way mentioned to take on the dignity of that title.

My thoughts are not wholly alienated from things wordly and commonplace—and interesting,—if my hand *is* supposed to be devoted this evening to the cause of Æsculapius.

I have been in the "big town" a week now, having arrived here on the 21st, after a very pleasant passage on the good ship Nevada, and a stay of two days in Glasgow and Edinburgh. A week's visit in New York antedated this part of my trip, and was spent in hospital and clinic inspection, and in making or renewing acquaintance with some of our Eastern medical brethren.

I was especially desirous of ascertaining the relative value of post-graduate instruction in special departments to be attained there, as compared with that given in London, Berlin and Vienna; and, naturally, I have not yet come to any conclusion, having gotten only as far as London. But I'm 'a-takin' notes', and expect to learn something on the subject before I get back.

I was struck with one feature concerning New York medical instruction, however: That there is too much dividing-up of the clinical material; patients that would make good subjects for clinics in special branches—for instance, surgical affections of the genito urinary apparatus, that if collected into one clinic or one hospital would make an extensive and valuable service, are scattered about in various general or surgical clinics, so that the student of a special branch not being able to attend all these clinics, misses, on this account, many valuable cases and instructive operations which he would be able to see under a different arrangement. This seemed to me to be notably so with reference to genito-urinary surgery. The great amount of material naturally afforded by so large a city as New York, is not sent for treatment to two or three large clinics devoted especially to this branch, nor to a hospital for the treatment of such affections, but is dissemminated in the way mentioned, in the surgical and venereal clinics and the general hospitals. And though we may read of the brilliant and successful work accomplished in this branch in New York, we are not able to *see* as much of it as we should like when we go there.

In London and Paris, it is different. In the former city there is St. Peter's Hospital for Stone, Stricture and Urinary Diseases, with an almost endless daily clinic, and special days for operations, and the Lock Hospital for Syphilitics and Venereal Diseases, with quite as large a service. St. John's Hospital for Diseases of the Skin, with service so large that two daily clinics of several hours each are required to get through with the patients; the Blackfriars' Hospital for Diseases of the Skin; London Throat Hospital; the Hospital for Consumption and Diseases of the Chest, Bromptom; the Hospital for Sick Children; the National Hospital for the Paralyzed and Epileptic; the Royal London, and other Ophthalmic hospitals, etc., etc., all furnish evidence of the custom of concentrating clinical material in the way mentioned, that prevails here. The hospitals of Paris furnish evidence of the same nature. "So do those of New York," perhaps my reader will say, but he must admit that it is not by any means so common there, and he cannot mention parallels for some of the classes of diseases included in the above hap-hazard list.

Therefore, in this respect, at least, London affords marked advantages for the specialist student. This is only one feature, however, and will have to be considered only as such.

The English are a conservative people; that characteristic stands prominently forth at all times, on all occasions. They are satisfied with what they would call "well enough" at a point at which an American would not think of stopping. They have lived in flat-fronted, four-story brick houses, and have carried on their business in five-story houses of similar architectual design for centuries; these have served them well, they think, so why make any change? Their nation has grown great in such poor habiliments, so that like the rich man, it can afford to look shabby.

I have long been an admirer of English conservatism, and have thought that in many cases we of America were inclined to be too hasty—in diagnosing, for instance, or too radical in operating; inclined to allow our impulsive ambition and progressive spirit to overthrow the dictates of sober judgment. But I cannot say that a closer acquaintance with this conservatism has enhanced my admiration for it any. It strikes me that it frequently amounts, in surgery and medicine, to actual slowness, and a Chinese-like imitativeness repelling progress and the advance of new ideas. In support of this conviction, with reference to the general life and business and habits of the English, I could mention a dozen facts off-hand— the primitiveness of their railroads, the coaches of which are never heated, hardly lighted, are minus lavatory accommodations, are arranged in an abominable style; the primitiveness of the hotels with their candle-lights, and frequently, no elevators; of the fire departments, which take anywhere from five to twenty minutes to arrive at the scene of a conflagration; the smallness and monotonous uniformity of all the houses, except the public buildings and churches or cathedrals. But, my surprise at the real extent to which this "conservatism" was carried has not been lessened by the method of handling a strictured urethra which seems to prevail here. I have talked on the subject with Mr. Reginald Harrison and Mr. Heycock, surgeons to St. Peter's Hospital, and Mr. Clark, of Lock Hospital; and from confreres from Kentucky, Drs. Straus and Scribner, who have been here longer than I, I learned that their views are about the same usually held here. They never claim to *cure* a stricture; they believe that the best results that can be obtained, is the ability to maintain a comfortable patency of the urethra by means of the intermittent passage of sounds throughout the patient's lifetime—preceded, if necessary, by a urethrotomy. In making the urethrotomy, Mr. Heycock and Mr. Harrison use a modified Maissonneuve urethrotome, which cuts always to the same caliber, and never above No. 21 French; and this is as much as they

usually cut, fearing hæmorrhage from a more extensive incision.

If testing of the canal by means of a No. 22, or perhaps 23, bulbous sound (Lister), shows that *these* sizes are not readily admitted, then the enlargement is continued with a divulsing instrument up to No. 23. That done, enlargement is thought to be secured—and without reference to the approximate normal caliber of the canal, or the relative circumference of the penis; these are not regarded. If the No 23 is passed the remainder of the patient's life, he has received as much benefit at the hands of surgery as he can expect.

The whole question of the correctness and propriety of such a view, hinges, I think, upon whether we can radically cure strictures by more radical measures—by cutting the urethra up to, or even beyond its normal caliber, so as to secure the division of *all* of the stricture tissue—the carrying out to a large degree, at lesst, of Otis' teachings, in other words. I think that the unanimity of the maintenance of this claim onAmerica's side of the Atlantic, would be such that we could hardly discover a dissenting voice.

Corresponding with the teachings of Sir Henry Thompson, gradual dilatation is more generally used here, and the urethrotome finds an infinitely smaller field of usefulness than it does with us. In vesical and venereal surgery, I believe their attitude would not seem so extremely conservative; but on this point I am not yet able to speak.

In endoscopy and cystoscopy, Mr. Hurry Fenwick certainly occupies an enviable position. In addition to the practical research which he has made in the electric illumination and investigation of the urethra and bladder, he has made some valuable modifications of the instruments, and has added materially to the literature of the subject, both in the journals and in his book on "The Electric Illumination of the Urethra and Bladder." He makes much use of the endoscope in his clinic, demonstrating to my satisfaction, the other day, some chronic glandular inflammations of the urethral membrane. He uses the device for inflating and ballooning the canal ahead of the tube, and I think that, notwithstanding the objection that has been made to this by some, that the congested vessels have their appearance changed by the pressure of the air in the canal, it is of material advantage in many cases. The urethra shows a different aspect from what we see with the simple tubal endoscope; we see much more of the surface at once, viewing, in fact, two or more inches beyond the inner end of the instrument. The simple Leiter electric endoscope (an older pattern), which I saw at one of the other hospitals, I should condemn as clumsy and awkward in every way. The tubes, in the first place, are too long; placing the object farther than necessary from the eye; the metal part is too thick, and does not hug the obturator closely enough to prevent injurious scraping of the membrane while it is being introduced.

I do not see the Goulay canulated staff used in connection with the filiform bougie; instead, what are called "trailers," long flexible bougies, having their small end prolonged into a filiform strand, which antecedes and guides the larger part, are used. The flexible guide screwed into the end of a metal instrument is also in use. I should prefer our own filiform and tunnelled staff to either of these.

The seats of the operating theatres in London are built on a plan which our own colleges and hospitals could adopt with much advantage, affording, as they do, a closer view of the operations by students. These seats are much narrower, compelling the onlooker to "sit standing," almost. It is not especielly luxurious as a lounge for a sleepy student, but it serves the purpose for a wide-awake one, and brings all nearer the operator.

Another device is well worthy the attention of our progressive City Hospital Superintendent, viz., the stretcher upon which patients are brought into the amphitheater. It is made of canvas, say two and a half by six feet, having its side edges turned over and sewed so that they will leave a space through which two long poles may be introduced, upon which the stretcher swings. The poles are kept apart by two iron crossbars which slip over their ends, thus preventing the stretcher from sagging disagreeably. A patient is brought in already anæsthetized, on such a stretcher, the whole is placed directly on the operating table, the poles and bars are withdrawn and he is ready; it is not necessary to lift him from stretcher to table, and back again. The ether inhalers with the rubber bag attachment are frequently used.

Through the courtesy of several of the surgeons to whom I had letters of introduction, I have already been enabled to witness many interesting operations. With Sir Wm. MacCormac, at St. Thomas' Hospital, on April 25, I saw Mr. Pitt extirpate a tuberculous testicle incidental to a radical operation for hernia, on a boy, about 8 years of age. Mr. Pitt's second case proved to be an interesting one. A man, 48 years old, displayed a tumor on the anterior and inner aspect of the right thigh, just above the knee. It was about double the size of a hen's egg; was of a hard, gristly feeling, somewhat painful and inclined to become inflamed when the patient did much walking or standing. It was of slow growth. The patient said that 14 years before his knee had been run over by a wagon, after which the growth had began and had slowly enlarged up to the present time. Now, do you know what that was? Rather slow for sarcoma, and didn't fill the bill for carcinoma, and—well, the operation was exploratory.

On cutting into it, it was found to be of a yellow-white color, firm of consistence, non capsulated, apparently growing from the vastus internus muscle, and closely connected to the membrane of the joint. It then suddenly occurred to Mr. Pitt that it bore a very close resemblance to a gumma; a piece was excised and sent to the hospital pathologist, who soon returned a confirmation of this last diagnosis. The wound was reclosed, and the patient was put on the iodides.

Other operations I shall have to speak of in another letter, as I notice this is growing to a length that endangers its interest.

I had intended to say something of the Universities at Glasgow and Edinburgh, Scotland, which I visited before coming to London, but London topics have occupied my time.

With best wishes for the "perfesh,"

I am very truly, BRANSFORD LEWIS.

CORRESPONDENCE.

DISTRIBUTION OF TRANSACTIONS OF THE INTERNATIONAL MEDICAL CONGRESS.

ST. LOUIS, MO., May 7, 1891.

EDITOR REVIEW.—In a recent number of THE REVIEW, I saw a notice to the members of the late International Medical Congress that met in Berlin last August, that if they would remit to Mr. Aug. Hirschwald 23 cents for postage, he would at once forward to them the first volume of the proceedings of the Congress. You will see by the enclosed that I did so, and he informs me that the volumes will be distributed to the members by the Smithsonian Institute in Washington. Will you kindly make the appropriate correction.

T. GRISWOLD COMSTOCK.

[The first volumes of the Transactions are ready for distribution, but we have thus far been unable to ascertain whether they have been received at the Smithsonian Institute. We presume, however, that members will receive notice when the first installments are ready for distribution. Such a notice should be sent out promptly to the American members.—ED.]

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, May 2, 1891. The Vice-President, J. C. MULHALL, M.D., in the chair.

DR. MULHALL read a paper on

DIET AND EXERCISE IN THE CURE OF SIMPLE CHRONIC INFLAMMATION OF THE CHEST, THROAT AND NOSE.

DR. FRY.—The doctor's paper is certainly a very excellent and entertaining one, containing much specific information respecting the simultaneous employment of hygiene in the treatment of those diseases embraced in the specialty of the doctor.

One point the speaker thought might possibly have been more fully employed, especially as he referred to the Swedish movement, and that is, the necessity of discriminating carefully between patients that may be instructed to take active general exercise, and those in whom the exercise should be greatly modified or possibly be altogether passive. This is so, especially in the persons of feeble women and old men, whom physicians have erroneously recommended to take a considerable, or even a large amount of physical exercise. It may not always be possible to discriminate, but for a patient who does not readily incline to take exercise, and is not soon benefited by prescribed active exercise, we should be very cautious not to urge such exercise. The experience of the speaker confirmed that of the author's observation respecting the improvement of certain catarrhal affections, not only of the nose, but of the womb, of which the doctor made special mention; that of the bladder and urethra may be added, especially in the female, while undergoing the massage treatment. He had seen very troublesome affections of this kind yield in what would seem to be almost a miraculous way during thorough massage treatment; also a uterine catarrh, that had caused much suffering to the patient from a profuse lochial discharge, completely cured, during ten or twelve weeks of massage treatment. He felt the force of the doctor's remarks in regard to the indefinite way in which we are apt to direct our patients to take exercise. He confessed his own mistakes in this matter, and frequently observed that his patients were very obtuse in obtaining his conception of what he designed to convey by directions to take exercise, and the same is true about diet; he recommended physicians to keep a printed diet list of foods, or as many different diet lists as they feel are necessary; physicians who do this have a decided advantage over those who do not keep lists. From such a series of lists we can select one (having made slight alteration, if necessary), and hand it to the patient. Patients who would not be disposed to follow a suitable diet, after a good deal of prescription, harangue and directions, will take the list, and live up to the letter of it.

DR. MCPHEETERS commended the paper of Dr. Mulhall as an exceedingly interesting and valuable one. We are very frequently reminded that it is not the whole of the practice of medicine to prescribe drugs. The doctor, the speaker said, has struck the key-note, and his estimate that nine-tenths of the benefit derived in the cases mentioned is due to hygienic and dietetic regimen and only 1% to medicine is not too high. The speaker had long been satisfied that the only safe cure of consumption in the early stages is outdoor exercise, breathing of fresh air, air rich in oxygen and ozone as possible. His advice to patients of that sort has always been, with regard to climate, to go to that climate where they can spend their time, day and night, out of doors as much as possible. The few cases of consumption which I have seen cured where there was a cavity in the lung, has resulted from living in a climate in which the patient could remain out of doors much of the time, such as New Mexico, which is a dry climate, where, if a buffalo or any other animal is killed and hung up, it will not decompose, but will dry and keep so for a long time. If the patient will go to such a climate, stay out of doors day and night as much

as possible, even sleep out of doors at night—which can be done without any risk at all—paying proper attention to hygienic and dietetic influences, he will derive the greatest possible benefit.

In regard to exercise, the speaker thought the elegant granatoid pavement, laid from Grand avenue to the park, so much frequented by ladies and gentlemen, will prove a wonderful aid in the treatment of many chronic affections, if we can only induce our patients to take that walk out and back, or begin by walking out and riding back, or riding out and walking back, and afterward compass the whole on foot. There is another thing in our city life: people have often more regard for their fine furniture and carpets than for their health; they exclude air and sunlight; those together constitute a fine and eminently salutary combination. The only benefit that the so called blue glass craze did (it was a humbug) was the compulsory admission of the sun light, into the houses and chambers, even though it came through blue glass. Methodical exercise and hygienic treatment overcomes constipation, which is a frequent and intractable disease with which we have to contend, and to treat it with drugs alone is often but to increase the difficulty; we must overcome it in some other way. The speaker thought there was more auto-infection, more poisoning of the blood by the absorption of the liquid portions of the fæcal matter in the bowel, which is the occasion of constipation, than by other means. Whenever there are dry scybalæ in the intestines, the liquid portions of the fæcal matter having been absorbed and taken into the system, there is more auto-infection from within than from without; and there is no more effectual way of overcoming constipation, a most fruitful source of headache, and many other diseases, than by proper exercise and proper hygienic conditions. With regard to diet the doctor's idea of a diet list is a good one. Of course where the patient is not able to take violent exercise, such as long walks or horse-back exercise, etc., the Swedish movement and massage, and other forms can be adopted according to requirements. With regard to exercise in disease of the heart, to which the doctor alluded, no one now thinks a patient is precluded from proper exercise, because he has an organic disease of the heart; it is absolutely necessary for him to take exercise, but of course it must be done under proper regulations.

A striking instance of this kind was presented by my friend, the celebrated Dr. Kane, who went through all the fatigues of Arctic explorations; he was a room-mate of mine in the Philadelphia hospital; he was my junior; he had a most pronounced organic affection of the heart and the loudest bruit d souffle that I ever heard; he often said to me that he never closed his eyes that he did not think he might die before morning; but, notwithstanding that grave affection, he underwent all the hardships of his several voyages, returned and lived several years, and ultimately died of some other disease. It is, therefore, just as important for individuals affected with sympathetic affections of the heart, as with organic affections, to exercise, and exercise is just as beneficial in the latter as in the former when properly directed.

Dr. Loeb said.—The valuable paper was replete with suggestions that all may follow, as well as advocate. He had often advocated this course, but had not quite so often followed the impulses of his own feelings by force of circumstances or otherwise. He thought the proportions given were exaggerated; in his experience nine-tenths of the cases of chronic rhinitis and pharyngitis were not curable by simply correcting errors of diet and of exercise. The detailed experience of the doctor certainly seems to show that such has been the case. He himself thought the St. Louis climate was eminently productive of catarrhal affections of the nose and throat; that the alternating sunshine, dust, and wet days which we have are very efficient in the production of catarrhal affections of the nose and throat, even where there are no perceptible errors in diet and exercise; every one commits errors in diet and exercise. He thought the doctor had rather minimized the importance of the factor of exposure, and a willful exposure at that, in the production of the diseases, and certainly the correction of abstract errors in diet and exercise would hardly remedy cases of this kind. Errors in digestion and assimilation are potential in aggravating all these cases as well as those of other forms, even when the disease is produced by other causes.

The speaker was confident that much good can be attained by local treatment of affections of the nose and throat specially alluded to. Of course where surgical interference is necessary, it should be done. With reference to methodical exercise as a curative agent a case came under his observation lately, being that of a professor in a gymnasium and a good one, and a doctor also, a well-built man with no errors in diet that could be ascertained, digestion good, and in good general condition; still he had a most marked case of chronic rhinitis, without its being hypertrophic. Local treatment benefited him. In this case exercise could not have been recommended as a curative means, nor could correction of the diet, where there was probably no real error to correct. However, diet and exercise have doubtless more to do with the cure of these cases than drugs, but the percentage of cases which can be benefited by diet and exercise alone in my experience, is by no means as large as the doctor has stated.

Dr. Bauduy said he wished to add his mite, and to congratulate Dr. Mulhall upon his very brilliant and most practical prper. The most admirable point in the doctor's paper was, that it is not a criticism of any particular method, as for instance, merely diet or exercise, upon which so much stress has been laid, as upon the concurrence of a multiplicity of recommendations as to diet, exercise, hygiene and surgical treatment; and emphasizing the importance of eschewing drugs in chronic affections. From his considerable experience in general practice, he had come to the conclusion that doctors recommend drugs entirely too frequently, and to a

great extent from habit. In observing the practice of some physicians (without wishing to sit in judgment upon the method of any practitioner), the speaker thought the habit of dashing off a prescription, as a matter of course, is often reprehensible. It may be said that the patient expects it, and the physician does it to please the patient. The most successsful practitioner, and certainly the most reliable physician, is he who enters fully into the investigation of the history of the patient's case—into the investigation of his habits—learns the inclinations of the patient, and all collateral circumstances, before he enters upon the problem of treatment. The speaker most emphatically recommended the doctor's suggestions, not only as regards dogmatic dictation of diet, and the materials of diet, but particularly the manner in which the food should be cooked. For instance, in recommending a nitrogenous diet, it is an essential element in the treatment of the case, that the valuable qualities of the food should not be destroyed in the act of cooking. It is a common thing in households to fry food, and if there is any recommendation particularly to be enjoined in dyspeptic conditions, which complicate neurological affections, it is as to the details of cooking, the modes and methods; the patient should certainly eschew certain modes of cooking; the speaker recommended that the food should be baked or boiled, roasted or broiled; that it should be cooked rare and not overdone.

As regards diet lists, he had had some experience, and regarded them valuable and very excellent things to have on hand; but he had discarded printed lists, because no two cases are alike in the same disease; we know that even in typical and classical cases of the authors, they all vary when we examine carefully and at the bedside; therefore the treatment must vary according to the individual idiosyncrasies; hence a uniform diet, even in affections of the same general character, will not apply to all individuals. There must be changes in the treatment to meet the indications in each particular case; and changes must be made as the case progresses. There is, however, danger that the idea of physical culture may be overdone, producing an aggravation of the very troubles which we seek to obviate or correct, and Dr. Mulhall is entirely correct in the declaration that a physician is the best person to encourage and promote the proper physical culture—to recommend just the dosage required, as we do with electricity and medicine. In regard to functional heart troubles, we know that distension of the stomach, and in some instances distension of the colon, will produce functional disturbance, and unless corrected by drugs, no happy results in the treatment thereof will be experienced; but in organic diseases of the heart, which the speaker had studied for many years, the alarming symptoms of apparently hopeless affections often cease under hygienic conditions, *e. g.*, methodical diet and exercise; instead of interdicting exercise, as was formerly done, proper exercise is now prescribed and the patient benefited; in this way we may avoid dropsical accumulations, retention of urea and discrasic conditions, which ordinarily accompany the disease; and this may be accomplished very frequently in my, opinion, without the agency of digitalis or the so-called heart tonics, iron and other remedies to invigorate the systolic action of the heart. By the methods recommended, in Dr. Mulhall's paper, the patient's life can be made comparatively comfortable for many years, and as the doctor intimated they may not die of heart disease, but of some other intercurrent disease. In fact, as Jaccou states in his admirable work, even where the most serious dropsical affections have resulted as the result of blood stasis, and interference with the circulation, the patient can be restored to comparative health, by having various concomitant conditions and manifestations relieved; and with the re-establishment of the circulation there ensues the re-establishment of the equilibrium, which virtually restores the patient to a condition as if no organic heart affection existed. He had seen in repeated instances various forms of heart trouble, which have been greatly aggravated by the drastic and hydragogue treatment of various physicians, but from which the patients were restored to the vigor of comparative health, to usefulness, even have been enabled to undertake once more their various occupations in life by the principle of Jaccou, of restoring the equilibrium of the circulation, by obviating these various collateral disturbances, which react on the heart and produce bad results, which eventuate finally in death, not from any other cause except from the drugs administered by the doctor. Many such patients are hastened to the grave by officious and unfortunate medical interference.

Dr. Mulhall.—Of course, weak people might very easily make their condition worse by exercise; but if it is prescribed and practised intelligently, it will be of benefit. No one but a trained physician, a physician in the full sense of the word, one familiar with every part of the body, the general practitioner, who is able to make a diagnosis of rectal trouble, as well as nose trouble, is in a condition to enable him to intelligently prescribe exercise. A physician, unacquainted with uterine or various other organs of the body, and their varying conditions, cannot prescribe for the conditions under consideration.

In regard to printed diet lists, one of the most successful practitioners in London, a man who has built up an enormous practice amongst the aristocratic classes, merely by having cured a great many people, Sir Andrew Clark, writes down the items with pen and ink; and his idea is, that when they see a man in his position take the trouble to write down what they shall take, the moral effect of the act on the patient is such as to make him implicitly obey what the doctor directs them to do. Again, if the patient is simply handed a printed diet list, without specific instructions, it looks as if the doctor wanted to save time; it does not impress the patient with the virtue of each article of food.

Dr. Loeb thinks my paper attributes too much to general treatment of individuals with nose and throat

troubles, simple inflammatory, and too little to local treatment. Whatever was said, was said advisedly. The speaker had been seeking the best method of treating nasal catarrh by local applications for 15 years; had visited all the great clinics in Europe; knew the methods pursued by the great rhinologists; had even taken the trouble to learn the composition of the various quack medicines in this country, in order to discover, if possible, something that he could appropriate for the benefit of his patients; had invented forty different combinations himself, and half a dozen different instruments, and believed he knew something of the local treatment of chronic inflammation of the nose; had exerted his ingenuity in every way, and with this experience he still felt authorized to state, that in simple chronic inflammation of the nose, the influence of diet and exercise is the most potent agent in the cure; that even nine-tenths of the good accomplished is by those means. Of course, other things, such as wearing proper clothing next to the skin, proper bathing, etc., are of benefit as auxiliaries; he employs also local treatment; but the patient is impressed with the fact that it will not alone do them one-half the good that will accrue to them if they follow his directions in regard to diet and exercise. Furthermore, he had had a great number of this class of patients, who have been patients of a gentleman of this city, who had treated probably 100,000 cases of chronic nasal inflammation, some of them for three or four years, with local treatment, and cures not effected; and certainly he is an expert in making local applications and knows the virtue of all the drugs as local applications. This failure of cure is one reason why it was impressed on the speaker's mind that it was unscientific to look for a cure of chronic inflammation by local applications. Dr. Loeb also stated that wilful exposure aggravates nasal catarrh. Undoubtedly it does, but he will not deny that a human being, æt. 30, can be placed in such a condition that it does not matter what the temperature may be, or what the climatic changes are, he yet will not suffer from it. Of course, the condition of the atmosphere makes a good deal of difference in the causation of rheumatism and chronic inflammation of the throat and lungs; but it is our duty to so harden, impart endurance to the mucous membrane and skin of the body in these individuals, that they will not be influenced by these changes. Of course these are not absolute laws; no two of these cases are exactly alike; there is no such thing as uniformity in nature, therefore we cannot lay down laws as to what will or will not occur. On the other hand, isolated cases prove nothing, in medicine especially. The case cited by the doctor of the professor of gymnastics, is one which proves the position taken in his paper. A professor of gymnastics is always overdoing physical labor; he is constantly doing it in order to give instructions. The speaker had seen fifty professors of gymnastics, and they are always more or less stale, as it is called, because they overdo the gymnastic part. Then, there may be many sources of error in the case of the professor; he may have had some nasal deformity. The stroke oar of the Yale crew had to be operated on, because of a deformity of the septum; he could not row with his mouth closed; where there is an anatomical deformity, that must be rectified. That there are exceptions must be admitted, and there are some individuals, as was stated in the speaker's paper, whom the most perfect hygienic life possible will not cure of chronic inflammation; but it is absolutely sure that drugs will not cure such individuals.

A word about the climate of St. Louis. The case of the gentleman cited in my paper shows how illogical his position was; he attributed the cure of his chronic nasal affection to the climate of Kansas; he is now well; he has been cured right here in the climate of St. Louis, and now laughs at his former illogical reasoning. In Kansas he earned his own living and paid his board; worked a limited number of hours each day, and devoted the rest of the time to hunting, fishing, etc. Here he works from 8 to 6, and his father's table fairly groans under the good things of this life. Dr. Morrell Mackenzie, when he passed through St. Louis, stated that he thought macadam dust undoubtedly caused nasal catarrh. The speaker thought this was an unfortunate expression of Dr. McKenzie. To be sure, this dust may aggravate the trouble. Patients have remarked that their catarrh improved when they moved off a macadamized street; but that is only one of the aggravating causes, but does not produce catarrh. The climate of St. Louis is an excellent climate, but the habits of St. Louisans are wretchedly bad, as a rule.

Dr. Atwood said it gave him great surprise and satisfaction to hear that one or two cases of nasal catarrh have been cured. He had asked specialists time and again if they could cure nasal catarrh, and they said no, never; he himself had treated a number of such cases, but had never been able to cure a case; so he was much gratified to learn that Dr. Mulhall had cured such cases. But with this single criticism, he said he believed he had to-night listened to the best paper that he had heard read before this society. It came to me with the same gratification that I read "Hilton on Rest and Pain," or "Mawdsley's Body and Mind."

Thoracic Aneurism.

Dr. Dalton presented a pathological specimen and said: This specimen presents a case of thoracic aneurism. It came from a mulatto, æt. 40, who entered the hospital on the 4th inst., suffering with pain in his back; it was thought at first to be a case of lumbago; there was some difficulty in breathing, pain in the left chest and back, and a few sibilant and moist rales; but beyond these symptoms nothing could be made out. The lungs seemed to be, with the exception of rales, perfectly normal. This morning, at about 4 o'clock, we were called to see him; his pulse was rapid, he experienced some difficulty of respiration, and expectorated a considerable quantity of blood. The patient died at 10 o'clock, four or five hours after the inception of the

trouble. A post-mortem showed a thoracic aneurism at about the sixth or seventh dorsal vertebra; the posterior portion had eroded the vertebra, and by adhesive inflammation the aorta was agglutinated to the lower lobe of the left lung, the entire lower lobe of which was infiltrated with blood; the aneurism had burst through into it, which, in turn, had ruptured on the left side, a large quantity of blood being found in the pleural cavity. His lung was carefully examined this morning. The dulness on percussion on the left lower side, the moist rales, the spitting of blood in connection therewith, induced us to believe that perhaps we had made a mistake in diagnosis, and that the patient had phthisis.

SOCIETY NEWS.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

North Carolina State Medical Society, Asheville, May 26, 27 and 28.

Connecticut Medical Society, Hartford, May 27, 28 and 29.

Pennsylvania State Medical Society, Reading, June 2, 3, 4 and 5.

State Medical Society of Wisconsin, Madison, June 3, 4 and 5.

Delaware State Medical Society, Rehoboth, June 9 and 10.

Maine Medical Association, Portland, June 9, 10 and 11.

Massachusetts Medical Society, Boston, June 9 and 10

South Dakota State Medical Society, Chamberlin, June 10, 11 and 12.

Rhode Island Medical Society, Providence, June 11 and 12.

Michigan State Medical Society, Saginaw, June 11 and 12.

New Hampshire Medical Society (centennial), Concord, June 15 and 16.

Colorado State Medical Society, Denver, June 16 and 17.

Ohio State Medical Society, Put-in Bay, June 17, 18 and 19.

Minnesota State Medical Society, Minneapolis, June 18, 19 and 20.

Medical Society of New Jersey, Long Branch, June 23 and 24.

MEDICAL MEETINGS.

The St. Louis Medical Society holds its meetings every Saturday evening at 8 o'clock P. M., to which medical men are cordially invited.

GUHMAN, M.D., Rec. Secretary. L. BREMER, M.D. President for 1891.

SELECTIONS.

THE SURGERY OF THE LATERAL VENTRICLES OF THE BRAIN.

The paper read by Dr. W. W. Keen at the Tenth International Medical Congress, a resume of which appears in the *Lancet* for September 13, 1890, is a very valuable contribution to this subject. Three cases of operrtion performed by himself for the relief of effusion into the lateral ventricles were as follows:

The first case was that of a boy, æt. 4, who was threatened with blindness from acute hyerocephalus. There were choked discs with retinal hæmorrhage and swelling; the swelling of the discs measured 2:30 mm. in each eye. A half-inch button of bone was removed an inch and a quarter behind the left meatus and the same distance above Reid's base line. The brain was punctured with a hollow needle, No. 5 French catheter scale, in the direction of a point two inches and a half vertically above the opposite meatus. At about an inch and three quarters the resistance ceased and cerebro-spinal fluid began to escape. Three stout horse-hairs, doubled, were then passed into the ventricle. No phenomena occurred during the operation. In two days the swelling of the optic nerves was 1.57 mm. and 1.63 mm. in the right and left eyes; on the sixth day 1.09 mm. in both. It had increased on the seventh day, and a tumor was sought for by probing, but was not found. On the fourteenth day a small rubber-tube was substituted for the horse-hairs without pain or discomfort. The swelling of the discs fell until it reached 0.83 mm., but on the twenty-eighth day had again increased to 1.33 mm., and the child was restless. The right side of the skull was then trephined at the corresponding point and a drainage tube passed into the lateral ventricle. On the thirty-second day the ventricles were irrigated from side to side with warm boric-acid-solution, four grains to the ounce. As soon as this began the patient became quiet and said that "it felt good." About eight ounces passed into the ventricles and six were retained. Two days later this was repeated wi h plain boiled water with no ill effects, but with less relief. A few days later the child was not so well, and died on the forty-fifth day. At the autopsy a sarcoma was found in the left lobe of the cerebellum, which had compressed the straight sinus and the veins of Galen and had encroached on the fourth ventricle. An exploratory puncture had passed through the tumor, which was too soft to be detected thereby. The cerebro-spinal fluid was perfectly clear, and the ventricles were grertly distended. The sinuses through which the rubber tubes had passed were not surrounded by an inflammatory zone.

The second patient, a boy, æt. 3½, had suffered from hydrocephalus since a few months after birth. The left ventricle was tapped as in the first case, turbid fluid was withdrawn, and horse-hairs were inserted. On the fourth day the opposite ventricle was tapped and rub-

ber tubes were inserted, which were closed by disinfected plugs of wood. These seemed to allow too free an escape of fluid, and convulsions set in the next day. Plain boiled water was siphoned into the ventricles and the spasm ceased as soon as the water began to flow in. On stopping the flow the convulsions recurred. The convulsions returned eight times, and were checked each time by the injection of from half an ounce to an ounce of fluid. The child died on the fifth day. An autopsy showed great hydrocephalic distention, but no injury from the operation.

The third was a case of tubercular meningititis with unilateral acute internal hydrocephalus of the left ventricle. The foramen of Monro was closed. There was right hemiplegia. The left ventricle was tapped through the arm center. The child was almost *in extremis*, and died four hours later.

After referring to the case of von Bergman, he described two cases reported to him by letter by Mayo Robson. The first patient, a girl, æt. 10, had pain in the ear, followed in three days by discharge, which gradually lessened, but was present a month later, associated with rigidity of the neck and twitching of the right angle of the mouth. There was no vomiting, but there was slight mental disturbance. On admission to the hospital, her temperature was 105°, there was pain in the left side of the head, with paresis of the right arm and leg, gradually developing into complete hemiplegia and aphasia, and the optic discs were inflamed. The skull was trephined over the arm center; the dura was found healthy; the brain did not pulsate, but seemed to be compressed. Fruitless punctures in search of pus were made in various directions, and then the lateral ventricle was punctured and half an ounce of clear fluid drawn off. Pulsation then returned in the brain. The wound was closed without drainage. The next day there was slight power in the arm, soon after in the leg; on the third day she could answer simple questions, in a month the hemiplegia was gone, and six months later she was perfectly well.

The second case was that of an infant who was trephined for increasing hydrocephalus following the treatment of spina bifida by Morton's injection. A rubber drainage-tube was passed into the lateral ventricle the escape of fluid was great, and the child died in convulsion on the third day. An autopsy showed that the brain had become greatly shrunken.

Reference was then made to the case of Ayers and Hersman which was greatly improved by the operation, making seven repeated cases, of which two had ended in recovery. For a new operation in so extremely dangerous a condition he considers this to be far from discouraging.

Regarding hæmorrhage into the lateral ventricles, he quotes a case in which Dennis removed a clot as large as a pullet's egg. The patient died, but rather from the laceration of the brain by the original injury than from the operation.

Four fatal cases of rupture of abscesses into the lateral ventricles were quoted, then two cases of rupture of the ventricles by compound fracture, both of which ended in recovery, and then five cases of rupture from simple fracture in young children, three of which ended in recovery.

Finally, he draws these conclusions:

1. Injuries involving the ventricles, the result of compound fracture, or of trephining, and involving great disturbance of the cerebral substance, are not necessarily fatal, for ten of the twenty-six cases here reported have ended in recovery. In these few cases compound fractures and extensive injuries, unless primarily fatal, seem to be less dangerous than rupture of the ventricles from simple fracture. They should be treated antiseptically in precisely the same manner as wounds in other parts of the body, by the establishment of asepsis, drainage, and the usual later treatment of similar wounds in other regions. If pus follows, or the cerebro-spinal fluid becomes dammed up, causing symptoms of pressure, incision and free drainage should be resorted to.

2. In cases of simple fracture involving the ventricles, experience would seem to indicate that it would be wise not to attempt any operative procedure unless threatening symptoms supervene. If it is necessary to interfere, it is recommended that the cyst containing cerebro-spinal fluid be continuously and slowly drained by a small bundle of horse-hairs rather than by freer evacuation. But it is believed that, in the majority of cases constant pressure and but little active treatment would meet such symptoms as might arise.

Possibly slight pressure would be all the treatment necessary.

3. Abscess of the brain bursting into the lateral ventricle has been thus far uniformly fatal and demands the promptest treatment possible. The suggestion made for instant bilateral trephining and irrigation of the ventricles can at least do no harm, although the possibility of its doing any good is but slight in so fatal a condition.

4. Hydrocephalus, whether acute or chronic, is usually a fatal disease.

5. Surgical procedures for tapping the ventricles for its relief are easy and certainly do not *per se* involve great danger.

6. Whether they will cure the disease is not as yet determined. In acute effusions, tapping with or without drainage, as may be thought best, will certainly save some lives otherwise doomed to be lost, and in the chronic form long continued slow drainage at an early period is at least worthy of trial, with a reasonable hope of success in a few cases.

7. The methods described for performing the operation, especially by the lateral route, might be resorted to with a view of determining the value of such surgical procedure.

8. After trephining and tapping of the ventricles, irrigation of the ventricular cavities from side to side not only is possible, but does no harm. In abscess involv-

ing the ventricle and possibly in other conditions, it may perhaps do good. The fluid used for such irrigation should not contain anything which, if retained and absorbed, might do harm. An artificial cerebro spinal fluid or a simple boric-acid solution would seem to be the best for such use.

9. Convulsions, due to too rapid withdrawal of the cerebro-spinal fluid, may be checked by re-injection of an artificial cerebro-spinal fluid, or such other innocuous fluid as the circumstances may make available.

10. In either irrigation or injection of the ventricles it is probably desirable that the air should not enter, but such entrance of air does not seem to be productive of mischief.

11. In hæmorrhage into the lateral ventricles, at least of a traumotic origin, instant trephining and evacuation of the clots should be done, and in a few cases will probably be followed by a cure, unless the injury of the cerebral tissue is such as to be incompatible with life. —Matthias L. Foster, M.D., *N. Y. Med. Jour.*

MEDICAL EDUCATION IN THE UNITED STATES.

It has long been known that there are few among the medical colleges of this country whose diplomas are recognized in Europe, although many American physicians have obtained international reputations for their skill and learning. The reason for this high appreciation of individuals and apparant disrespect for the institutions from which some of them may have been graduated requires some attention. Is it a deliberate effront to our medical colleges, or do they actually merit such reproach? Critics have intimated that there are striking defects in our system of medical education which would not be tolerated under any other Government in the world. Among them are the lack of stringent requirements for preliminary education, deficiency in hospital facilities for students, and shortness of the time spent in actual preparation, and the insufficiency of the final examination which tests the qualification of a man for the degree of doctor. While these criticisms are no doubt perfectly true of the majority of the schools, there are, fortunately, several whose standards are as high as those in any other country. Altogether there are 135 medical colleges in the United States, and from them between four and five thousand young medicos are graduated every spring to recruit a profession which might perhaps otherwise suffer extinction. By making a little comparison with other countries we find that where, in the United States, there is one institution able to confer medical degrees to about every 500,000 inhabitants, Germany has one for every 2,000,000, Great Britain one for every 3,000,000, Austro-Hungary one for every 5,500,000, and France one for every 6,300,000. One would imagine that we must be a singularly afflicted people to require so much professional care, but investigation proves that no other nation is healthier than ours. We are, therefore, led to justify our right to the possession of so many medical colleges by presenting the fact of our enormous superiority in expanse of territory as compared with other nations, and we may be allowed the little pleasantry of suggesting that it is both just and proper to estimate the relative number of medical colleges by their relation to acres of area. It certainly cannot be the demand of a suffering population, or why should Pennsylvania, with just double the number of inhabitants, be content with but 6 medical faculties, while Missouri has 14? But the area of Pennsylvania is roughly 45,000 square miles, while that of Missouri is 69,000, and this gives us a probable clue to the increase as we go Westward. Massachusetts, Connecticut, Vermont, and New Hampshire have together about the same pepulation as Ohio, but they have altogether only 6 medical colleges, while Ohio rejoices in 15! But Ohio has nearly 10,000 square miles more of area than these four States taken together. So it may be that there is something in the relative proportion of medical institutions to acres after all. There are some who argue that the East is becoming effete, that even culture is leaving our boundaries to take up its permanent abode in the West, and no doubt they will welcome any fact which may lend a support to their theory. Thus New York, Boston, and Philadelphia have 15 medical colleges, but the new seats of culture, Chicago, Cincinnati, and St. Louis, have 22?—*New York Sun.*

NEW OPERATION FOR SPASMODIC WRY NECK.

Dr. W. W. Keen read a paper on this subject before the Philadelphia Neurological Society, October 27, 1890; it is published in the *Annals of Surgery*, January, 1891. The steps of the operation are as follows:

1. The field of operation having been shaved and disinfected, make a transverse incision about half an inch below the level of the lobule of the ear, from the middle line of the neck posteriorly, or even slightly overlapping the middle. This incision should be two and one-half to three inches long.

2. Divide the trapezius transversely.

Dissect up to the trapezius and find the occipitalis major nerve as it emerges from the complexus and enters the trapezius. In the complexus is an intra-muscular aponeurosis. The nerve emerges from the complexus at a point between this aponeurosis and the middle line, usually about half an inch below the incision, but sometimes higher up, and then enters the trapezius. It is always a large nerve of the size of a stout piece of catgut, and it is easily found if sought for in the right place.

4. Divide the complexus transversely at the level of the nerve. This division should be made by repeated small cuts, so as not to cut the nerve which is our guide, after which dissect the nerve still further down from the anterior surface of the complexus, where it arises

from the posterior division of the second cervical. Cut, or better, exsect a portion of the posterior division before the occipitalis major arises from it, so as to catch the filament to the inferior oblique muscle. This divides the second cervical.

5. Recognize the inferior oblique muscle by following the sub-occipital nerve towards the spine. The nerve passes immediately below the border of the muscle.

6. Recognize the sub-occipital triangle formed by the two oblique muscles and the rectus capitis posticus major. In this triangle lies the sub occipital close to the occiput. It should be traced down to the spine itself, and be divided, or better, exsected. This divides the first cervical.

7. An inch lower down than the occipitalis major, and under the complexus, is the external branch of the posterior division of the third cervical to the splenius. When found, it is to be divided or exsected close to the bifurcation of the trunk. This divides the third cervical.

A drainage-tube and horse hairs are to be inserted, and as the patient lies on the back, although the wound is very deep, the condition is most favorable for good drainage. If desired, the posterior muscles can be united by buried sutures, independently of those in the skin. The after-treatment is the same as for ordinary operations.—*Periscope.*

ICHTHYOL.

Ichthyol is obtained by distillation from a bituminous mineral, containing large quantities of fosil-fish, hence the name given to it. The raw oil is then treated with concentrated sulphuric acid, in certain proportions, and the mixture neutralized either with potassium sodium, ammonium, or lithium. According to Prof. Baumann and Dr.Schotten, the raw oil contains: carbon, 77.25; sulphur, 10.72; hydrogen, 10.52; nitrogen, 1.10. The analysis of sodium ichthyolate gives: carbon, 55.05; hydrogen, 6.06; sulphur, 15.27; sodium, 7.78; oxygen, 15.83. All these preparations are soluble in water, some solutions, however, being cloudy and making a slight resinous sediment Perfect solution is effected in a mixture of alcohol and ether, but for all practical purposes the solution in water suffices. As it is not very prepossessing, either in odor or taste, it is supplied for internal use in form of pills (sugar-coated), and capsules, most elegantly prepared in water-tight enamelled tin boxes. For lotions, ointments, etc., it is supplied in tins of various sizes, faultless in form.

As will be anticipated from the foregoing statements, ichthyol is a capital remedy in skin diseases, and its applicability extends over the whole range of them. It combines excellently with simple ointment, lard, and especially with lanolin, and is prescribed in from 5% to 15 and 20% proportions, at the same time giving it internally in doses of from 3 to 10, 12 and 15 pills, or a corresponding number of capsules, and reducing the doses or suspending the use of the drug for a time, when it begins to cause diarrhœa, which with many patients does not occur at all. There is not the least discomfort accompanying its internal administration; on the contrary, the appetite,with very rare exceptions, is stimulated, and the patient gains in weight. With regard to the external use of the drug, either in form of lotion or ointment, it is necessary to observe that its resinous ingredients coat the skin and make it sticky, and that to ensure the greatest possible efficacy the parts must be washed every night with warm water and soap, and if the area of disease is not too extended, rolled up in ichthyol wadding.—*Chic. Med. Times.*

THE SURGERY OF THE LIVER.

Operations on the liver have formerly rarely been attempted; until quite recently surgeons had the greatest fear of even making a simple puncture for hepatic abscess, much more of making a resection of a portion of the organ, and Lawson Tait and Langenbech were the first to practice opening and draining of the gall-bladder. Dr. Terrillon (*Bull. Gen. de Therap.*, Feb. 15, 1891), by experiments on rabbits and other animals, became convinced that such fear was quite unnecessary, and in the present communication gives a complete resume of his experience of hepatic surgery.

The paper is divided into four parts.

1. Exploratory operations, punctures or incisions into the liver.

2. The surgery of the gall-bladder, cholecystotomy and cholecystectomy.

3. The opening of abscess of the liver.

4. The best conditions and operative precautions to be adopted in resection of a portion of the liver.

The following are his conclusions drawn from nine person observations of the more serious operations:

a. The surgery of the liver only demands a few special precautions which can be easily taken. Punctures into this organ are harmless, with ordinary antiseptic precautions.

b. The gall-bladder may always be opened and drained. This operation is known as cholecystotomy. All that is necessary is a simple, careful opening of the peritoneum. Calculi may either be removed or more or less decorticated, according to the case. If the bile-duct be obstructed, opening of the gall-bladder will be simply a palliative, but when it is permeable, cure is rapid; no fistula has been observed to persist after the operation. Cholecystectomy, on the other hand, can only be performed with impunity in very exceptional cases. Its utility is, besides, questionable, since simple incision with drainage gives equally good results.

c. Ablation of a portion of the liver is rendered harmless and easy if hemorrhage be prevented by the use of an elastic ligature placed at the limit of incision, between the healthy and diseased parts.—*London Medical Record.*

USEFUL FORMULÆ.

CURATIVE TREATMENT OF HERPES.—

℞ Aristol,
Resorcine, - - - - - aa ʒss.
Tarro-Petrolene (or Petroleum Com., No. 1), - - - - - - ℥iij.

Ft. Oint. Sig.: Apply twice daily over the diseased region. Fowler's solution of arsenic may be used besides, internally.—*Bacteriological World.*

SALICYLATE OF MERCURY.—For hypodermic injections Vacher uses the following solution:

℞ Hydrarg. chloridi corrosiv., - part, j.
Sodii salicylici, - - - parts, ij.
Aquæ destil., - - - - " c.

In this solution each cubic centimeter contains one centigram of salicylate of mercury. For use by the mouth, a 1-1000 to 1-5000 solution should be used.—*Deutsche Med. Woch.*

TREATMENT OF TINEA TONSURANS.—Simpson (*Med. Analectic*) has had excellent success with the following treatment for ring-worm of the scalp and body: Cut the hair short and wash the scalp well with tincture of green soap, and apply the following solution with a camel's hair brush.

℞ Hydrargyri chlorid, corrosiv., - gr.j.
Collodii, - - - - - - ℥j.—M.

This treatment may be recommended for three reasons:

1. The corrosive sublimate destrows the fungi.
2. The ether of the collodion penetrates to the root of the hair, conveying the corrosive sublimate to the seat of the disease.
3. The film formed by the collodion shuts off the supply of oxygen to the fungi and thus helps to destroy them.—*Pittsburg Medical Monthly.*

SALICYLATE OF SODA AS A CHOLAGOGUE.—Prof. Germain Sée, in an article on hepatic colic, published in the *London Lancet*, calls special attention to the use of salicylate of soda, which he has found to be the most efficient of all cholagogues in promoting the expulsion of gall-stones. The well-known cholagogues were found worthless in the ailment, for they stimulate the biliary secretion by increasing the solid elements, which is not desirable.

Salicylate of soda stimulates the biliary secretion by increasing its fluid element, which is the principal indication in the expulsion of gall-stones.

The cholagogue property of salicylate of soda was made known by Rutherford, but has not received much attention; with the additional recommendation of Prof. Sée, supported by his vast clinical experience, the remedy should be considered worthy of trial.—*Mew Remedies.*

PUBLISHERS' NOTICES.

MEDICAL BOOKS.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather binding. Published by Birmingham & Co. 1882. List price, $5.00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

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APIOLINE IN AMENORRHŒA AND DYSMENORRHŒA.—In the April number of the *Virginia Medical Monthly*, Richard S. Hill, M.D., of Washington, D. C., records his experience with Apioline in gve cases of the above mentioned affections, and with the happiest effect. after the failure of many other agents that had been tried.

Apiolinum or Apioline in the active principle of opium petroselinum or common parsely. Experiments show that it has a special action on the circulatory system of the smooth muscular fibers of the uterus, producing vascular congestion and excitement with contraction.

It is to be taken three times a day in capsules containing three drops each and before meals, beginning three days before the expected time of catacænia and continued to second day of the period.

SIX CENTURIES OF WORK AND WAGES; A History of English Labor. By J. E. Thorold Rogers, M.P., Late Professor of Political Economy in the University of Oxford. Abridged. With Charts and Appendix by the Rev. W. D. P. Bliss. Introduction by Richard T. Ely, Ph.D., Associate Professor of Political Economy in Johns Hopkins University. Price, 25 cents. The Humboldt Publishing Co., Astor Place, New York.

This is the first number of the Social Science Library, which puts at the disposition of the public a record that is invaluable. It is the story of the struggle of the English poor against the avarice of priest and king, landlord and capitalist; a story told by the records of thousands of court rolls, and stewards' accounts, compiled by unconscious historians who little dreamed of the tale the figures they so patient added up would one day be made to tell. From the beginning of the thirteenth century, when almost every one not only possessed land but cultivated it; when a landless man was looked on as an outlaw and a stranger; when the use of the common pasture was without stint, and the arable land of the manor was usually communal; from that remote date to modern times, Prof. Rogers conducts the reader through the successive stages of a drama whose motive was the cheapening of labor for the benefit of the monopolist. And surely no time could be more fitting than the present for publication of this work which, with its special charts, clear type, good paper and elegant make up, is destined to have an extensive sale.

ORIGINAL COMMUNICATIONS.

SOME POINTS IN THE TECHNIQUE OF COMPLICATED LAPAROTOMIES AND REMARKS ON THE CAUSES OF THE GRADUALLY INCREASING SUCCESS OF THE RESULTS OBTAINED.

BY PROF. A. C. BERNAYS, ST. LOUIS.

All operators have recognized that in order to arrive at valuable conclusions in the discussion of operations performed on the abdominal viscera, some distinctions must be drawn, between the different procedures which have been classed under the head of laparotomy or abdominal section. We know that an operation performed on the viscera after the section of the parietes, may be an exceedingly simple one, entirely devoid of danger, or it may have to be classified among the most dangerous of all known operations. We all agree that an exploratory laparotomy, for instance, performed for the purpose of determining the presence or absence of renal calculi in one or both kidneys, is absolutely devoid of danger. The incision in the peritoneum need not be over one inch long, and only one finger need be introduced into the cavity, as a rule, to achieve with certainty the object of the operation. I would much rather have this operation performed on myself than to have an operation done on the palm of my hand for the purpose of extracting a lost needle, the operator and the surroundings being the same in both operations. I made a similar assertion in a medical society eleven years ago, and was laughed at by the older surgeons. At the present writing, I have no fear of contradiction from any experienced operator. It is admitted, therefore, that the mere act of opening the peritoneal cavity, and closing it again with sutures, is an operation which must be classified as one of the simplest and least dangerous operations in the entire domain of surgery.

On the other hand, there are operations performed in the cavity upon the hollow intestines for gunshot injuries, for perforations, for strangulations, or for pus sacs, which are properly deemed to be the most difficult, technically, and most fatal in their results of all known surgical procedures.

Veit, the gynecologist, of Berlin, has attempted to draw a line of division between the different operations in the cavity, and divides these into "complicated" and "non-complicated" or "uncomplicated" laparotomies. If I understand him correctly, only those operations are to be counted as complicated, which are accompanied by the escape of virulent germs into the peritoneal cavity.

From a theoretical standpoint, this division seems to me eminently proper, but clinically, its advantages are not apparent, because no one has as yet given us a diagnostic method of distinguishing whether or not pus, which we come across during the operation, contains virulent germs or not. Neither our eyes nor our noses can decide this question for us at a moment's notice, so that we can not use this differentiation during the performance of an operation as a guide for our treatment of the case. The use of drainage, for instance, would seem unnecessary if the escaped contents or pus were aseptic or free from pathogenic microbes. Since we can not decide whether the pus or sac contain virulent germs or not, we sometimes use drainage unnecessarily. I am afraid Veit's definition can not become of practical utility in the management of our cases, unless we have a method of determining the presence of virulent germs in a few moments. Staining and mounting a specimen for microscopic examination during the operation might do for some germs, but others are not so easily and quickly found. I have seen a celebrated surgeon wait fully one-half hour for the pathologist to determine the character of a neoplasm of the femur, which had started from the medullary structure. The section was made, sarcoma found, and the exarticulation at the hip joint was done. The naked eye would have left the operator in doubt. Without the microscope, the diseased condition would have been taken for chronic periostitis and osteomyelitis. The patient was an old lady about æt. 60. No doubt the delay caused by making a pathological diagnosis was a justifiable action, and the operation was finished with a full understanding of the disease.

Does Veit contemplate a combination of the bacteriological laboratory and surgical operating theater? In the present state of our knowledge, this would hardly appear feasible, and I think he did not contemplate it seriously.

The complications[1] which may arise during an operation on the abdominal viscera may be considered under two heads:

1. Accidental or necessary lacerations and lesions of: (*a*) the alimentary tract; (*b*) of the urinary organs and passages; (*c*) of the biliary ducts or vessels.

2. Accidental or unavoidable rupture of abscess, or of degenerated neoplasms, with escape of contents into the peritoneal cavity.

For the sake of clearness, we will assume that the complication in both instances is a true one in the sense of Veit, namely, containing virulent germs. We might disregard the consideration of the complications under *b* and *c*, because it is nearly certain that the urine and the bile do not contain virulent germs in their normal conditions. But an injury to the urinary bladder or the ureters, or to the gall-bladder or the bile ducts, will require treatment which must be prompt and efficient. The principles which govern our treatment of these injuries are well understood. We will repair the injury, if possible, by suture or ligature in such a manner that the cavity will be secure from a leakage into it

[1]Under Veit's definition, dangers arising from constitutional vices, from hæmorrhage, shock, etc., are excluded, and will not be considered in this essay.

from the injured viscus, and may be immediately closed. Should this prove impossible, then we must establish a direct or an indirect passage way for the urine or the bile, in such a manner that the general cavity does not become the receptacle of the excreted fluids. The shorter it can be made, the better will be the results. If the injured viscus can be directly attached to the abdominal parietes, so that the excretion will be directly thrown outside of the body, this method will be preferable to the introduction of a long intra abdominal drainage tube or wick. In other words, the formation of a urinary or biliary fistula may become necessary.

The same principles govern our treatment of gut injuries, and unless a very secure intestinal suture can be made, the immediate formation of an artificial anus seems to me the most commendable method. Intestinal injuries are of much greater dignity, so far as danger from septic infection is concerned, than those of the urinary or bile passages, because it is very probable that the intestinal centents at all times contain virulent germs of some kind. I do not mean to convey the idea that these germs are always of the well-known specific (pathogenic) varieties, but I have noticed that intestinal perforations, as for instance in appendicitis, nearly always are accompanied by high temperature and the rapid formation of pus—in fact, by symptoms of acute sepsis. In every case of intestinal perforation, where I have examined the pus, it has contained streptococci.

I have had occasion recently to operate upon three cases of intestinal fistula, the result of laparatomies performed for pyosalpinx. I am led to believe that this accident is quite a common one in operations for pyosalpinx and ovarian abscess. The three cases came to me in the short space of two months; the operations had been performed by operators who have had some experience in abdominal work.[2] I found that in the one case, where the tear in the gut was immediately attached to the parietes, the operation of the fistula, or artificial anus, as it were, was much easier than in another case, where the tear was in the sigmoid flexure, and a tortuous sinus over five inches long led from the fistula in the linea alba through agglutinated adherent intestines and omentum down to the injured gut, which was fastened to the sacrum by fibrous adhesions. In this case I made inguinal colotomy as a palliative measure, and the unfortunate patient greatly prefers her present condition to her former one. We will make another attempt, however, to restore the continuity of the gut after a few months of rest have been given; in the meantime, we hope nature may do a great deal toward repairing the existing lesions.

In a case of intra-abdominal myoma of the rectum, reported by Senn in the Weekly Medical Review, March 21, 1891, he tore a hole about the size and shape of an almond kernel into the anterior wall of the rectum, just above the deepest point of Douglas' sac. In this case, it was of course impossible on account of the deep location of the rectum to pull the rent in the gut up to the abdominal parietes, and establish an artificial anus. Senn treated the complication in the following manner:

"Upon examination of the torn surface of the tumor, I found attached to it a strip of mucous membrane, somewhat oblong in shape, about half an inch in length and one third of an inch in width. The escape of fæces left no doubt that some part of the large intestine had been injured, but some doubt existed as to the exact location of the wound. Rectal insufflation of air demonstrated that the opening existed at the floor of the pelvis, at a point over the middle of the rectum, where the peritoneum is reflected forward over the bladder. A large soft rubber tube was now inserted into the rectum as far as the sigmoid flexure of the colon, and over this, after careful disinfection of the parts, which had been contaminated with fæces, the opening in the rectum was closed with a number of Lembert sutures. This part of the operation was exceedingly difficult and somewhat unsatisfactory, on account of the deep location of the visceral wound. After another careful toilette of the pelvic cavity, a large Keith's glass drain, surrounded by several layers of iodoform gauze, was inserted in such a manner that its distal end corresponded exactly with the sutured rectal wound.

* * * * *

"A laxative was administered on the third day, and after the bowels had moved freely, the glass drain was removed, and a small quantity of fluid fæces escaped. The tubular wound was gently washed out by irrigation with a solution of boracic acid and the drain re-inserted. The external wound healed without suppuration, and all of the sutures were removed at the end of the first week. Six days after the operation the glass tube was removed, and drainage secured by the insertion down to the rectal wound of strips of iodoform gauze. The fæcal fistula closed completely and permanently two weeks after the operation, after which the drainage opening closed rapidly by granulation and cicatrization."

The result in this case, when Senn reported it, was satisfactory and perfect. It remains to be seen whether it will be permanent or not. The method of drainage employed was a good one, and where an artificial anus can not be made, I would employ it or some other modification of the Miculicz and Saenger methods. Senn packed gauze around the outside of the Keith glass tube, while I have been in the habit of packing the gauze inside and through the glass tube, so as to let a portion project at the lower end of the tube, in the most dependent part of the cavity to be drained. I may say that I have never had to regret the use of this method of drainage in cases where I felt the necessity of using a drain at all.

[2] I believe that this accident (rupture of the gut, during the separation of adhesions around a pus tube or pelvic abscess) is so frequent and unavoidable a complication, in laparotomy for pyosalpinx, that it should be placed in the scale as a weighty argument against the abdominal method of treating abscesses of the tubes and ovaries.

In those cases of complicated laparotomies, which come under the second head, escape of pus or putrid contents of degenerated neoplasms into the abdominal cavity, I would recommend the following methods of treatment:

1. Avoid flushing the abdominal cavity with either antiseptic or aseptic fluids.

2. Use dry or nearly dry sponges or pieces of gauze for wiping, cleansing, or sponging away undesirable material that may have escaped into the cavity or upon the edges of the wound.

3. Abandon the procedure which is called the toilet of the abdominal cavity, because it does more harm than good. Avoid all prolapse of the intestines by means of the Trendelenburg method of elevating the pelvis. Restrict the introduction of sponges, fingers, instruments, etc., into the cavity to the utmost degree of necessity.

The peritoneum is able to "get away with" or render innocuous much more of the dreaded debris that may soil it, than has heretofore been thought possible. I consider meddlesome and pedantic intraperitoneal manipulation among the greatest dangers of laparotomy.

4. As to the question of drainage, a precise rule of action can not yet be given. I would recommend its restriction as much as possible on account of the dangers of secondary or late infection, which are always associated with the management of abdominal drainage, even with good nurses.

The notion that it is possible to drain the whole abdominal cavity is absurd, and it is equally absurd to suppose that every part of the abdominal cavity can be reached by flushing or irrigation.

Drainage can, therefore, only be useful when it is intended to evacuate and keep dry a small and limited portion of the cavity. I believe that the chief benefit to be derived from the use of the drainage tube, consists in its facilitating the removal of a certain amount of exudation, which will frequently accumulate at and around the locality of an operation, for instance, around the pedicle. The unaided peritoneum is, however, in most cases, able to remove by absorption these exudadations and secretions of serum. The drainage may act as a sort of safety valve, in certain cases where the possibility exists that the peritoneum could not master the abnormally great secretion.

Finally, drainage may in some cases be a useful measure, when it is practised with a view to achieving hæmostasis, or when it is used as a sort of tamponade. Gauze or wicks being pressed through large-sized glass tubes upon oozing or bleeding surfaces are sometimes very useful in arresting excessive capillary or venous bleeding. I have seen excellent results follow the use of this kind of combined drainage and tamponade, but would warn against the frequent and unnecessary use of this method, because the peritoneum can drink up a large quantity of blood in a most astonishingly short time.

The above *modus operandi* has very gradually been evolved as the result of my experience during nearly fourteen years. No doubt I will still simplify my method in the future. But the results achieved by the plan of management outlined in this paper, have been equal to the best recorded by any operator in this country or in Europe.

I have now passed the middle of my eighth hundred of abdominal operations, and the percentage of recoveries has increased steadily, so that in uncomplicated laparotomies a bad result is entirely unexpected.

I have never yet succeeded in doing 100 consecutive intra-peritoneal operations without a death, but I confidently hope that I will be able to do so before reaching my first 1000 laparotomies.

One of the reasons for the continually increasing success is found in the almost incredible rapidity which is gradually acquired as experience grows. Rapidity depends on simplicity of the methods used as much as upon the personal dexterity of the operator.

Another reason which will account largely for the increased success, is the fact that I have become much more careful in the selection of cases than I formerly was. It is a fact that I could do many more laparotomies if I chose to draw the indications more loosely. I have a much greater material to pick from, than in former years; for example, I have often refused to do an operation on patients who have been expressly sent to me from a distance to have their ovaries and tubes removed. This selection of cases is an unavoidable concomitant of an increasing practice, and is, to a great extent, done unconsciously. Thus by selecting cases the operator consciously or unconsciously greatly contributes toward a continual increase of his success.

520 Olive Street, St. Louis, Mo.

SOME PRACTICAL POINTS IN ABDOMINAL SURGERY.

BY JOHN H. M'INTYRE, A.M., M.D., ST. LOUIS, MO.

"Suppose I give a hint to you,
Suppose you give a point to me;
Then I shall give a hint to you,
And you will give a point to me,—

in the discussion which I hope will follow the reading of this paper. In my opinion, any "point" or suggestion which diminishes the risk to life after laparotomy is an important one.

The first point to which I call your attention, is that of anæsthetics, the safest and best of which is bichloride of methylene used in a Junker's inhaler. I have used it in laparotomy work for the past ten years, without a single untoward symptom, and with the greatest satisfaction, and upon many occasions have put it to as severe a test as it is possible to put an anæsthetic. By its use, anæsthesia can not only be promptly induced, but safely maintained for any desirable length of time, and it is rarely followed by nausea and vomiting.

By the use of the inhaler of Junker, overdosing is

next to impossible, in reality the patient takes inspired air charged with the vapor of bichloride of methylene, and it is surprising what a small quantity is required in doing a prolonged operation.

Short incisions constitute another point of excellence, and should never be extended beyond the point of necessity in removing a growth of given size without bruising the tissues.

In removing the ovaries or Fallopian tubes or both, it is rare that the ventral incision need be over two inches in extent.

In dealing with adhesions, perseverance by well directed effort will always succeed, remembering, however, that violence is always harmful and the necessary force should be that of gentle momentum.

Intestinal adhesions should be separated as far from the gut as possible, for by so doing the danger to hæmorrhage is much lessened; they should also be carefully examined afterward, as the placing of a Lembert suture in proper place at the opportune moment will prevent the mortification of a future fæcal fistula.

In the management of the pedicle, I always use Japanese cable silk, transfixing and tying the ordinary surgical knot, when dealing with large tumors, but for the removal of the appendages, I am partial to the Staffordshire knot of Tait.

Drainage.—"When in doubt," I always drain and prefer the Keith tube to all others, and am a thorough believer in flushing the abdomen with a large quantity of hot distilled water; it is marvellous sometimes to see how many blood clots can thus be washed out even after careful sponging, besides it is one of the best methods of relieving shock.

Closure of the ventral wound can best be done with silk worm gut; it is the ideal suture, as it is round, and smooth and very strong, and can be rendered perfectly aseptic. As it is rather stiff, it should be steeped for a few hours before being used, in a solution of some kind, so that it can be tied tightly. It should be threaded at each end upon straight or slightly curved veterinary needles, the needle being held in the grasp of the Spencer Wells needle holder, should be passed from within outward, always including the peritoneum; sutures should be placed four to six to the inch; the frequent cause of ventral hernia following abdominal section is an insufficient number of sutures.

After management.—For the first twenty-four hours nothing should be taken into the stomach except a little hot water; bits of ice chewed or swallowed do not relieve thirst; the second day a little barley water may be allowed, and on the third she can be promoted to a chicken wing, when afterward, if everything goes well, almost any light diet may be allowed.

When pain is present, I use but little morphine, on account of its tendency to arrest secretion, and thereby prevent the elimination of morbid material, but in its stead, for more than a year past, have used antikamnia with happy effect. It soothes and tranquilizes, and lessens the tendency to rise of temperature.

Stitch hole sinuses can best be obviated by early removal of the sutures; it is rare that I allow sutures to remain in the ventral wound longer than the eighth day, and I often remove them as early as the sixth.

He who essays to do abdominal and pelvic operations, should, by previous observations and training, be so fitted for his work that when he comes into "action," he will be "ready for anything, and surprised at nothing."

The best place in which to obtain the highest grade of success is not in large general hospitals, neither is it in a cottage by the wayside, but in a small, especially prepared establishment, under the absolute control of experienced management.

614 Olive Street.

TRANSLATION.

ABSTRACTS FROM THE FRENCH AND GERMAN.

FOR THE WEEKLY MEDICAL REVIEW.

BY FRITZ NEUHOFF, M.D., ST. LOUIS.

Quinine in Whooping-Cough.

The administration of quinine in pertussis was first promulgated by Binz in 1868. My excuse for again bringing this old treatment into notice is, that after six years of constant trial, I am convinced that we find in it a much neglected though efficient means of aborting, or at any rate greatly ameliorating one of the most dreadful scourges of childhood.

The idea that no medicine is of value in whooping-cough is, alas, as yet too common among the profession.

To obtain benefit from quinine, it must be given in large doses. Binz recommended to give twice daily as many decigrammes as the child is years old. I, myself, have sometimes given even larger doses. In younger children I repeated the dose thrice instead of twice a day. I have done the same also in older children, though as a rule I do not exceed 1.2 grammes a day. In exceptional cases when the disease was very severe and the child robust, I have given as much as 1.5 daily for one or two days. I prescribe one decigramme for each year up to the age of four years. For children older than this I do not usually raise the dose, but give them only 0.4 twice a day, though at times I have gone as high as 0.5.

To children under two years I give relatively large amounts, namely, 0.05 at a dose for three months of age; and single daily doses of 0.1 for six months; 0.12 for twelve months; 0.2 for eighteen months. As a rule, however, I do not exceed .01 for each month of age.

Besides the age, the general condition of the child must be taken into account in determining the dose. The very large doses are given only until improvement becomes manifest, usually for three to four, or five to

six, even eight to ten days. After this each dose is diminished according to the improvement. Later on the number of daily doses is reduced to two and finally to one a day. In older children on the appearance of improvement I diminish the daily amount of the medicine, not only by first decreasing the amount of each dose, but by immediately lessening the number of doses. When only one dose is given daily it should be administered in the evening.

I must warn against the too rapid diminution of the doses as being liable to cause a relapse. Single daily doses should be continued for several days after cessation of the paroxysms. Even though no result follows the first few days, the treatment should be continued for awhile before we decide that it is powerless.

The above doses seem large, but children bear quinine relatively better than adults. In no case have I seen or heard of deleterious effects from these large doses. Even the disagreeable effects, as partial deafness, etc., which are common in adults, are not observed in children. Neither does the quinine cause vomiting. In fact it diminishes the frequency of this always more or less prominent symptom of the disease. To avoid this complication, it is best to give the medicine immediately after a paroxysm, and to prepare it in as palatable a form as possible.

Should, however, vomiting, nevertheless, be a prominent symptom, the drug may be given per rectum, or hypodermically. For this latter method of administration the bimuriate of quinine is the best, as it is very soluble and non-irritating. The rectum is not well fitted for the administration of quinine. Acid solutions irritate it, and neutral solutions are not readily absorbed by it.

As to the form of giving quinine per os, I recommend, in older children capsules, followed by acid drinks, and in younger children, an acid solution in syr. rubi idæi. The tannate is tasteless, but also insoluble, and therefore inefficient.

While of course there are cases of pertussis (but they are rare) in which quinine is altogether powerless, as a rule this drug, when given in large enough doses, will greatly ameliorate the disease and produce what is practically a cure in about two weeks. Some cases it may cure in one week. Others it will ameliorate but not shorten as to duration. At any rate it is a harmless remedy, which latter assertion can not be maintained in respect to the lately so highly recommended bromoform.—Dr. Ungar, in *Deut. Med. Woch.*

[As a vehicle for the administration of quinine to children, I have found nothing to be as efficient as the syrup of yerba santa. A teaspoonful of this holds in suspension 3 or 4 grains of sulphate of quinine and renders its administration absolutly tasteless, provided each dose of medicine is immediately followed by several swallows of water to wash it down. If this latter precaution is omitted, some of the medicine will remain adherent to the mucous membrane of the mouth and after a few minutes will produce the usual bitter taste of quinine. No acid should of course be added to the mixture of quinine and syrup, though there is no objection to the ingestion of acid some time after the administration of each dose.—F. N.]

Methyl Blue in Cystitis, Pyelitis and Carcinoma.

Methylblue, when administered by the mouth or rectum, speedily enters the circulation, as is shown by its rapid appearance in the urine. The blue urine excreted by patients taking 0.2 methyl blue two or three times a day remains aseptic after standing three weeks. Inoculations of this urine in bouillon gelatine gives negative results, while inoculations of ordinary urine a day old gives rise to large colonies of germs.

The above experience led me to give methylblue internally in two cases of cystitis and pyelitis, and the results have thus far been good.

As the treatment of phthisis is now the all absorbing topic, I think I am justified in administering methyl blue to phthisical patients.

The following are my reasons for expecting favorable results:

1. The coloring matter might reach and enter certain nervous centers, and thereby diminish the cough and pain.

2. Microscopical examination of the sputum of patients taking methylblue invariably shows the presence of crystals of the coloring matter. Inoculation of this sputum, however, still gives rise to abundant colonies of tubercle bacilli.

Having become informed of the good results which are said to follow the injection of pyoktanin in malignant tumors, I proposed to use methyl blue internally in the same class of cases. I preferred methyl blue because I was familiar with its dose, and because it is tolerated by the stomach and bowels in larger doses than pyoktanin (methyl violet). I gave the following history of a case which I have treated with methyl blue for about three weeks:

The patient is a married lady, æt. 40. Eight months ago a diagnosis of ovarian tumor was made. Three months later Drs. Thomas and Mundé diagnosed carcinoma of uterus and pelvic tissues too far advanced for operation. When treatment by methyl blue was begun, patient was much emaciated. There was ascites and œdema of legs. No appetite. Pulse, 110 to 120. No fever. Great pains, insomnia and frequent nausea. I now ordered 0.2 methyl blue internally three times a day. After three days this caused the pulse to intermit, and after this the medicine was given only twice a day. After two weeks' treatment improvement began. The appetite returned, pain and insomnia disappeared. Five days later ascites and œdema had also disappeared; the general condition was better; the pulse strong and beat 80 per minute. The tumor appeared smaller on palpation.

Patient is still improving at the present time and I attribute this to the methyl blue.

I am at present trying the treatment on two other cases, but it is as yet too early to pass judgment on them.—Max Einhorn, of New York, in *Deut. Med. Woch.*

The Presence of Tuberculin in Tubercular Exudates.

On October 10, a member of the Medical Society of Hospitals reported on the treatment of tubercular peritonitis by the intra-peritoneal injection of a solution of boric acid. This treatment had always resulted in a cure.

We were less fortunate with our cases. In two of them the temperature rose to 40° C. on the day of the operation; the general condition also was very grave, though all went well on the following day.

This febrile reaction and grave symptoms were not due to peritonitis nor to the action of a substance as little active as boric acids. We suppose, therefore, that the injection produced an irritation of the peritoneum. Under this influence a part of the exudate was absorbed and the absorption caused the symptoms. In fact there happened what happens after an injection of Koch's lymph. In other words, we consider the peritoneal exudation as a liquid derived from bacilli which is susceptible of producing symptoms analogous to those obtained by the liquid from the cultures of bacilli.

We wished to verify our hypothesis, and have endeavored to find out whether our peritoneal lymph, like the lymph of Koch's, produces a reaction in the tuberculous, and in the tuberculous only.

Therefore we injected into the thigh of a patient afflicted with tubercular peritonitis, 5 cc. of the ascitic fluid drawn by aspiration from another patient and carefully filtered (by a Pasteur filter). We thus avoided the risk of provoking a local tuberculosis.

Six hours after the injection, the temperature rose to 39° C., while on preceding days, at the same hour it had not reached 38° C. A second injection administered several days later produced the same results.

It now remained to prove that the reaction did not occur in non-tubercular subjects. We did this in a case of cancer of the stomach and in a healthy person who wished to be experimented upon. An injection of 8 cc. in the non-tubercular gave only a rise of five-tenths of a degree of temperature.

On the other hand, in a tubercular young man the apices of whose lungs were affected and who had, moreover, a lupus ulcer of the face, a 10 cc. injection produced a temperature of 39° C., and at the same time there were observed on the part of the lupus phenomena of congestion and an abundant exudation of lymph on the ulcerating points, just as occurred in cases in which Koch's lymph had been employed.

A second injection of 20 cc. produced a temperature of 38.8° C., and other phenomena of reaction similar, though less marked than after the first injection.

After a third injection, the temperature rose to 39°C., but the local reaction was still less marked.

These researches appear to demonstrate that in the exudations of the organism of tubercular patients, there exists products similar to, if not identical with, those which Koch has designated under the name of tuberculine.—M. Debove, in *La France Med.*

Salol in Rheumatic Affections Tending to Chronicity.

Salol relieves perceptibly the pains which accompany certain forms of chronic rheumatism provided they are not of too long standing. This remedy seems also to arrest the evolution of the lesions of chronic rheumatism.

The amount of salol given in a day is 3 or 4 grammes (=45 to 60 grains) divided into two doses.

The medicine is best administered in capsules about three hours after meals.—*Le Bul. Med.*

Treatment of Nephritis.

In order to ascertain the effect of meat and meat preparations on the kidneys, Stewart subjected rabbits to a series of injections of kreatin and keratinin (which are abundantly present in meat). The animals invariably died inside of a few months, and the autopsy always revealed the large white kidney. The author now fed a number of rabbits on Liebig's Extract, giving them larger doses each day. Some of the animals died very soon, others lived longer, but none lived over a few months. The autopsy again revealed large white kidneys, which the author attributed to the kreatin and kreatinin present in the meat extract.

From the above it follows that meats and meat extracts, when ingested in large amounts and for a long time, cause inflammation of the kidneys. Nephritic patients should, therefore, be allowed as little as possible of these viands, which should be replaced by milk and carbohydrates.—*Med. Chir. Rund.*

Epilepsy from Injury to the Head Cured by Trephining.—This was the case of a man, æt. about 40, who received an injury to his head in November, 1884, by which he was stunned. In June, 1888, nearly four years after the injury, he began to have fits, which quickly became frequent and severe. Medical treatment having done no good, and the site of the injury being tender to the touch, it was decided to operate, and accordingly in July of the same year, Mr. Miller trephined, removing at the operation three circles of bone. The patient had been having between forty and fifty fits daily before operation, but immediately after they gradually diminished in number and severity, and disappeared altogether six weeks after the operation. He was sent home in September, 1888, and from then till now has had only one fit, which was said to have been brought on by grief on the occasion of the death of one of his children.—*Med. Press.*

WEEKLY MEDICAL REVIEW.

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TO CONTRIBUTORS AND CORRESPONDENTS.

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All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

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SATURDAY, MAY 30, 1891.

OBSERVE THE CODE.

The articles of our unwritten commission, we conceive, enjoin upon us, first and chief, to communicate the best medical literature of the day, to be vigilant sentinels of the signs of the times, and also of current events; and in the exercise of our zeal for the honor of our high vocation, to be impartial censors of professional conduct, comparing it with the line and plummet of the code of medical ethics. And while in due degree commending the virtues of the worthy, yet expose dereliction without fear or favor, and hold up to general detestation the low arts and cunning devices of the unworthy. For the aggrieved, modest and deserving there is no other available vehicle of communication of fellow with fellow; no other refuge or protection, save in the unsatisfactory inquisition of committees or the distant courts of ultimate appeal. The experience of one practitioner is identical with that of every other, except in kind and degree; all have suffered from those who should have sustained; few have complained. "*Crimine ab uno disce omnes.*" Numerous as are the instances of professional infraction, we propose now to array and comment upon only two, that have recently come to our knowledge. The names of the transgressors are unknown to the writer, therefore we can fearlessly declare our sentiments, but the facts can readily be substantiated. Whoever is guilty, let him apply the reproof to himself and beware in future.

A prominent physician lately observed to the members of a family, acknowledging another practitioner as the family physician, "he is not a respectable physician nor held in fraternal esteem;" while the contrary is true, he being respectable and meritorious, and held in high professional esteem. What was the result? Dethronement of the former, and the slanderer installed in his place—his only crime being comparative youth, though by no means without medical experience, and the enjoyment of a small income, all of which was necessary for the subsistence of his little family.

Another prominent physician, having ingratiated himself into the confidence of a patient, recently acquired, enjoins that "her former physician should not be informed that he himself was now treating her." And yet both are associated as professors in the same medical college.

Now these prominent physicians have enjoyed a fair share of public confidence, and have acquired a competency, while those supplanted, worthy and competent, struggle for maintenance of self and family. Why was this offence committed—rank and smelling to heaven? What motive could instigate the slanderer—"not respectable," "nor esteemed"? For greed, is it—though abundance is already possessed? What will not the love of lucre induce an unworthy man to do! "*Auri cœcus amore.*" Pygmalion impiously slew with a sword his brother Sychœus, off his guard, even before the altar. So this backbiting physician slew his brother's reputation secretly, by a volley of false epithets, within the penetralia (sacred precincts) of the household, which, in a peculiar sense, belonged to another. And none to interpose in his behalf! "A pound of flesh, nearest his heart! These are the very words." Yes, the charge which won the place was "not respectable," "not esteemed!" "These are the very words." "Who steals my purse, steals trash; 'tis something, nothing. But he, who filches from me my good name, robs me of that which not enriches him, and makes me poor, indeed."

In the other instance, a conscious spectre of violated faith haunted the prominent physician; some faint sense of the right evidently remained, some slack obligation to the requirements of the code, for he says: "Don't tell your former doctor that I am treating you." Where is the faith, honor and justice that characterized those nobles of old, Aristides and Cato? And these were pagans! A worse than pagans have we here. Let them beg they "may have leave to hang" themselves,

as Gratiano suggested. How reads the Scripture, of which these "prominents" may have heard? Among the catalogue of sins committed in social life are "covetousness, maliciousness, whisperers, backbiters." And what the penalty? "Thou who commit such things are worthy of death," so heinous and criminal were those sins regarded, and such the desert incurred. The psalmist records blessings upon him "who walketh uprightly, speaketh the truth in his heart, backbiteth not with his tongue, nor doeth evil to his neighbor."

Laws and codes are not promulgated and enacted for the upright, the just, the noble. The conduct of these naturally, spontaneously conforms to the inculcations of the Golden Rule, of which too many are oblivious. Codes are for him who deviously crosses and recrosses the straight line of demarcation, separating the right from the wrong. The right he does when he *must;* the wrong when he can, for metricious ends. His career is capricious, having no settled principle of action. He is a constant danger to his fellows, a perpetual menace to good order and professional fellowship. It is pitiful to observe equals scheming and preying upon each other, as foul and hungry harpies, for the prize of gaining the patronage of a person or family; but how much more abhorrent to noble sensibilities, and execrable, to see an elder, or one more favored, to descend to the arena, where detraction and disparagement are employed, and for what? To secure the transfer of a filthy, ill-gotten dollar to his own pocket, which clean worthily belongs to another. Theft is the crime, and this superadded to the lie, "Thou shalt not steal." "Thou shalt not bear false witness." That dollar may have been needed for hungry mouths that day.

But how reads the code?

Art. V., Sec. 1. "Medicine is a liberal profession, and those admitted into its ranks should found their expectation of practice upon the extent of their qualifications, not on intrigue or artifice." In the instances cited of violation of these provisions, a fatal blow is struck; the true genius of the profession ignored and denied; instead of "liberal," it is perverted into the most illiberal, by the base manner of its exercise. "Intrigue and artifice" denounced are here actually impersonated and rendered potential for gain, while the sufferer, wronged and defamed, bleeds at every pore. Laws deal little in affirmatives. Thou shalt not, is its province and fiat. The code even is limited in its specific prohibitions; one could scarcely be framed that should include and prescribe all conduct between fellow practitioners; it considers only those relations which admit of the most palpable and frequent violations. It presumes upon the dogma that every physician is also a gentleman in the highest signification of this classic and refined appellation.

Consider Section 2. "A physician in his intercourse with a patient under the care of another practitioner, should observe the strictest caution and reserve. No meddling inquiries should be made; no disingenuous hints given, etc., nor any course of conduct pursued that may directly or indirectly tend to diminish the trust imposed in the physician employed."

Here is a prominent physician, who habitually enters the sanctum of a household which belongs to the clienele of another, wags his tongue of detraction, "leaves his slime as he crawls." No wonder he desires his presence there to remain unknown. Where is the "strictest caution" enjoined? The "disingenuous *hints*" are amplified into flagrant and false imputations. With such conduct, again, how can he reconcile the provisions of Section 3.

"Should business or friendship bring a physician into intercourse with the patient or family of another, which should be avoided, except under peculiar circumstances, * * * and no particular enquiries should be instituted," etc. In the case cited frequent visits are made, and rarely is an opportunity missed of supplanting the former for the instalment of the "prominent."

Section IV takes cognizance of relations of physicians and the conduct to be observed. "When a physician is called to visit the patient of another in cases of sudden emergency, * * * or when he has relinquished the case," or has been duly discharged. Under such circumstances, no unjust and illiberal insinuations should be thrown out in relation to the conduct or practice previously pursued, which should be justified as far as candor and regard for truth and probity will permit." And this when he shall have "been regularly notified that his services are no longer required." Here he invades the professional domain of another, and ruthlessly ejects the former occupant, and not content, filches from him his good name. In view of the flagrant violation of these provisions, where or how can the "prominent" hide his diminished head?

Thus the Code prescribes explicitly the mode of conduct for all. If the provisions are disregarded, the aggrieved and the wronged too oft must suffer in silence. The unfeeling may say "prefer charges." Yes, we know this course is open. Should it afford even slight relief, it is no remedy or reparation. It is a form of retaliation which affords only a paltry satisfaction to a high minded spirit. The act is committed; the blow inflicted; the smart and the cicatrix still remain. "What's done cannot be undone." The non-commission is the only redress; this alone is complete and impossible. True, there may be no other better way of preventing unprofessional conduct, than ventilating the wrong, and giving it publicity. Fear and apprehension of exposure to the medical and general public, and its consequences, may be the most potent agency of preventing its commission or repetition. Those who never enjoyed the luxury of entertaining a noble sentiment, can, with difficulty be influenced by any agency short of brutal. Loss of even a factitious reputation may be the only cautery that can arrest the wrong-doer, or awaken in him any proper exercise of the right. But reference to committees, etc., involves trouble and anxiety to self and others. Even then, conduct highly reprehensible in my view, may appear far less objectionable to an-

other. How shall one for another estimate the import of a sneer, the toss of the head; how calculate the force of an inuendo or ungenerous reflection? By what balances weigh the mighty incubus of a defamatory expression, or by what line fathom the depth of the sentiment that "damns by faint praise?" Will the aggressor aver, "was it not in sport?" Reputation is an entity of too delicate texture to be treated with thoughtless or careless words. A jest may conceal a bomb, which in its results may blast the reputation of one, more worthy far, than that of him who gives it a wantou expression. Patronage conferred, is the highest compliment that can be extended. Except in cases of emergency, this is not granted, till after mature ac quaintance, respect and confidence are through a series of years, it may be, established or by the recommendation of friends, in whose judgment the patron relies. A reputation of mushroom growth usually has little to sustain it, and as soon decays. A genuine reputation, one to be desired is of slow growth, the product of toilsome years. Base then the heart that would wantonly and with design murder a good reputation. Glamis murdered sleep. Of this, law can take no cognizande. Murder of a good reputation is a violation of social law, it also immolates friendship, alienates companions, disrupts society and is visited with ostracism; if these are not amenable to the civil or criminal code, they are atrocious infractions of the higher law, than which there is none more comprehensive or better adapted to all conditions. "Do unto others" etc.

This social crime, tis humiliating to confess, does not prevail alone among the equals in age or position. Oft is the tongue of obloquy within the lips of the seniors in the profession, who should be living exponents of the code, illustrating its wise precepts and rendering themselves examples of justice and probity. Would that all would recognize and scrupously observe the rights of their fellows, rights not formulated in words and codes. Then their would be no demand for codes prescribing permissions or prohibitions. No visible bonds unite individuals in the social relation in communities, in commercial or mercantile intercourse; yet, like the unseen force that keeps the plants in their orbits, they can be demonstrated to exist, and to be indis pensable to the perpetuity of all moral and social order. Public opinion, the resultant of all the forces of right, human and divine, is the imperial central power which pervades and controls human society. To the arbitrament of this tribunal all conduct of its members is referred and adjudged. When each extends to his fellow, what he himself demands, in conformity therewith, all is harmony and peace. There was harmony in the council of the gods, when all the celestial divinities received their just dues; but the withheld invitation induced the toss of the golden apple, which, in its consequences, brought unnumbered woes upon Trojan and Greek. Therefore, the consequences of an act are often inadequately anticipated and infinitely disproportionate to the original cause. A gnat is a small animal, but it is large enough to madden an elephant. The friction match, or the lighted candle in their places are small, common and useful devices, but they are large enough to involve a Portland, or a Chicago in the conflagration of half of those cities. The spoken word, either to bless or to curse, like the sped arrow, is beyond recall; it is sure to perform its legitimate mission. Strange it is that one heart should be capable of such widely diverse propensities. The Archangel Gabriel, as Arabian historians state, eviscerated the heart of Mahomet, and from it squeezed therefrom original sin. Would that some power in similar manner would squeeze from every heart the disposition to detract, disparage or vilify his brother, and thus hasten the advent of the halcyon days of the Millenium.

Gout and Rheumatism.

There can be no possible doubt that, despite the different opinions in regard to the cause of gout and rheumatism, alkalies exercise a very good action, and tend to relieve the system of that hyperacidity which seems to be always present. In this administration of alkalies, some care is to be exercised in order to avoid those disturbances of the digestive system which may come on as a result of their continued administration. Among the best of the alkalies is lithium and its salts. Some, however, contend that its combination with other alkalies makes its action more sure and effective. A combination devised by an eminent practitioner is as follows:

℞	Lithium benzoate, -	gr., 12.823.
	Lithium bicarbonate, -	gr., 13.784.
	Potassium bicarbonate,	gr., 10.000.
	Sodium chloride, - -	gr., 10.000.
	Carbonated water, - -	℥xvj.

M.

This makes a palatable effervescing mixture which is very grateful to take, as well as effective in action. Of course, it is impossible to prepare this extemporaneously. Dr. Enno Sander has made the above in his usual thorough manner, and has named it Benzoated Lithium Water. Being palatable, it is taken by patients with a certain relish, and the peculiar taste of the alkalies does not manifest itself, being complely covered by the carbonated water.

American Medical Journal.

The last number of the *Journal* informs us that Dr. J. C. Culbertson, of Cincinnati, Ohio, has been appointed editor of this organ of the American Medical Association. We heartily congratulate our confrere of the pen to this elevated position, and upon the highly honorable distinction thus conferred by the Trustees. In this new relation he enters upon a sphere of duty not *new*, only *amplified*, for which his long, faithful and

successful career as editor of the *Lancet-Clinic* has given him abundant experience. We bespeak, and confidently anticipate for him eminent popularity in this changed relations to the medical public; and trust he will achieve for the *Journal* the destiny to which it is entitled and which it should attain—the first in excellence of medical literature; first in degree of patronage and first in the esteem of the American medical profession.

MEDICAL ITEMS.

Personal.—At the meeting of the St. Louis Medical Society, May 23, we had the pleasure of the presence of Dr. R. B. Granger, Managing Editor of the *New York Medical Journal*, to whom was cordially accorded the privileges of the floor. The profession would rejoice to extend to him other honors, but his brief tarry in the city forbids, he being *en route* to Kentucky. May some of the elements of his capabilities as editor be imparted to us of the Review, while health, and happiness attend him journeying, sojourning and returning to his post of duty.

Gargle in Cases of Fœtid Breath.—

℞ Bicarbonate of Sodium,
Saccharin,
Salicylic Acid, - - - aa ʒj.
Alcohol, - - - - - ℥iv.

A teaspoonful in a cup of water. Use as a gargle several times daily.—*American Journal of Medical Sciences.*

Transaction Tenth International Medical Congress.—The first part of the transactions of the Tenth International Medical Cogress has been distributed among the American Members by the Smithsonian Institution. This first part relates to the General Sessions only, including the addresses before the Congress, together with the registration and list of names constituting the officers and committies. It appears there were 5952 names registered; of this number 610 were registered from America, 26 of these from the city of St. Louis.

Iodide of Potassium in the Treatment of Urticaria.—Stern has successfully treated five cases of chronic urticaria by the administration of iodide of potassium, four of the cases having been rebellious to all the measures usually employed in this disease. The fifth case was one of acute urticaria of a few days' duration. None of the patients were syphilitic and all were rapidly cured. In one case which had lasted for four months the intolerable itching disappeared on the second day of treatment, and a complete cure was obtained after two and a half drachms of the iodide had been administered. In two other cases, one of two years' and the other of six years' duration, the effect of the iodide was equally good, cure following the administration of six and eight drachms respectively.—*London Medical Recorder.*

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, May 16, 1891. Dr. McPheeters in the chair

Dr. A. H. Meisenbach read a paper (to be published next week) reporting a case of

Epilepsy,

and presented the brain of the subject.

Dr. McPheeters inquired.—Was there any apparent cause for the epilepsy?

Dr. Meisenbach replied, he especially refrained from mentioning any cause, since the causes of epilepsy being so obscure he preferred to submit the determination of the cause to some of the neurologists. The patient was æt. 29 at the time of the inception of the epilepsy.

Dr. Bauduy said he listened to the narrative of this case with great interest; and especially to the concluding remarks, which he could fully corroborate, as to our lamentable ignorance of special lesions or characteristic conditions in epilepsy; but, the explanation of the phenomena presented can doubtless be more readily made after the doctor's careful post mortem. Respecting the etiology of this class of cases, the effect of alcoholism is to produce paralysis of the vaso-motor nerves, with consequent capillary congestions, and dilatation; this is reiterated in German literature, particularly, which is more extended on this subject, than any other, and has contributed more than amy other literature with which he was familiar and has accomplished much to establish the effects of the dynamic action of repeated cerebral congestions and fluxions, with disturbance of the cerebral circulation. Repeated debauches, and alcoholic habits, paroxysmal or continuous, produce congestion of the brain and vaso-motor paralysis, and the deleterious results resulting from them. In the second place, very frequently collateral œdema occurs as the result of these congestions. The primary congestion and resulting states, and lastly œdema, produced pressure, thereby interfering with the nutrition of the brain, and in softening, which condition was found in this case, in the vicinity of the corpora striata; there also ensues atrophic changes, the result of profound nutritive disturbance from impediment of the cerebral circulation and pressure. The atrophic condition of the brain, is one of the necessary conditions of repeated congestion corresponding with the condition which the doctor found with this brain, the brain did not fill the calvarium, indicating that it was shrunken—undoubtedly atrophied. The atheromatous degeneration probably played no figure in the concatenation of circumstances. Persons of 47 or

48 years have lived many years, even when it is demonstrable that atheromatous and degenerative changes have occurred in the walls of the vessels, which we expect to meet with in persons who have passed the meridian of life.

As regards the development of the epileptic attacks, which were classical in their manifestations, the early history of the case is sufficient explanation, without even referring them to any special tonic lesion; any animal, vegetable or mineral poison in the blood may produce epileptiform attacks or true epileptiform manifestations. In this case however there was, in addition, a toxic disturbing element in the blood, producing motor disturbances, these convulsions; there were lesions, which would more particularly explain the permanent condition of epilepsy, for instance the thickening of the arachnoid, the adhesions which existed—certain prolongations of lymph into the arachnoid, which may have been due to a lymphangitis; or there may have been a pachymeningitis, which is frequent in some forms of alcohol poison. The doctor in harmony with the doctrines of to-day, threw doubt upon our knowledge of the true causative anatomical lesion of epilepsy. Unfortunately for science and therapy, we are almost as much in the dark on this subject now as we ever were—many questions now are as much *sub judice* as ever. An immense amount of light has been thrown upon the functions of the brain by Hughlings Jackson, of London. Great progress in differentiation has been made in isolating the phenomena of Jacksonian epilepsy. The doctor referred to an authority who, although he wrote at the commencement of this century, yet gives us more true information upon this subject, than any other known writer, Schroeder von der Kolk. He states, that in certain cases of old and inveterate epilepsy, there is a sclerosis of the medulla oblongata—the convulsive center being in the medulla oblongata; but beyond that he did not develop anything more satisfactory.

An interesting case will be operated on by a prominent surgeon of this city, tomorrow, at my request. It illustrates the difficulties of arriving at an intelligent conclusion. It is the case of a child brought to the speaker from Texas, about three or four weeks ago. At the age of fifteen months, through the neglect of the nurse, it received a severe fall, from the height of three feet, upon some broken bricks. At that time the child had made considerable progress in talking; the mother states she has three other children, all bright and intelligent, but, yet, at the age of fifteen months, were not as far advanced as this one. At the time of this fall there was an arrestation of development; the child is now about five and a half years old, and has never developed beyond that of the period of fifteen months. In addition, it was noticed, by the appearance of the child, that it was undoubtedly deaf in both ears. When the child was brought for examination, the speaker's attention was called to a slight enlargement, of an apparently osseous character, at the junction of the frontal with the parietal suture, or a little to the left of it a slight induration, unyielding in character; feeling like bone, and suggesting a possible oxostosis or a periostitis, but no particular symptoms indicating pressure at this point. This question presented itself: Since epilepsy of a most inveterate character had resulted from this fall, as well as total deafness, how much an operation could avail in relieving the conditions found. Of couse, these are usually undesirable, thankless cases and such as surgeons are not particularly desirous of operating upon. The speaker sent the patient to Dr. Spencer for examination on account of the deafness; the doctor diagnosed labysinthian trouble in each ear, with permanent deafness, the result of the traumatism. The question arose whether an operation was justifiable. Dr. Tuholske also examined the patient, and, after a careful examination, concluded that it was most wise and prudent to take a conservative course; he determined that on to-morrow afternoon he will make an exploratory incision through the scalp and pericranium, down to the skull; and if he then finds additional reasons, or corroborative proof of bony disease, or if there is a depression or other conditions which will justify further surgical appeals, he will then trephine at that point, with a view of ascertaining, whether there may not be some cause, intra-cranial, which can be removed, and thus relieve the child of the epileptiform convulsions; although it is almost a *dernier resort*—a forlorn hope. The mother has almost determined upon the operation, because two surgeons in Texas and one in Illinois desired to trephine. The father is also very anxious to have an operation done. The existence of pressure at this point was apprehended, in consequence of a case reported by the speaker to this Society some years ago. The case was that of a little boy, who was brought to him from Illinois, who had had a fall, and a traumatism of considerable severity; as a result, there was a circumscribed swelling, which felt like a cerebral hernia, protruding through a circumscribed opening in the skull, or as if there might have been an absorption of bone or some serious solution of continuity at that point, it being soft, moveable, rather elastic and of a fluctuating character. At that time the case was very critically examined, and then sent to Dr. Bremer for examination, whose views in most respects confirmed my own. The speaker suggested an operation; but the idea of surgical interference frightened the mother and she left the city. But the interesting feature in that case was this: By pressure upon this tumor vertiginous epilepsy could at will be procuced. Singularly enough, the boy had a tight redundant prepuce and an adherent phymosis; (the speaker never examined male children affected with epilepsy without looking at their penis, with the view of ascertaining whether phymosis exists, as I have too frequently seen the benefit of circumcision in these cases) An attack of epileptic vertigo could be produced at will by handling the penis of this boy. In this case also pressure upon the original

site of injury of the head, or handling of the prepuce would produce epileptic vertigo.

These experiments are corroborated by a case which the speaker had narrated, and of which he did not remember to have seen the parallel in neurological literature. It is a case cited by —— ——— of New York, of a patient who had a tumor in the axillary region, pressure upon which, produced at will vertiginous epilepsy. About the same time there occurred another case of similar interest, presenting the same phenomena. A lady was referred to the speaker with an epileptic condition; knowing the theories of Charcot upon this subject, as in males he usually examined the prepuce, so in women, he usually examined the ovary, particularly the left. He found that by very decided pressure, during one of the epileptic paroxysms, (which occasionally occurred in my office,) he could relieve the epileptic attack, but not the unconsciousness, though it very greatly shortened it. Certain superficial irritation, slight pressure in the region of the ovary would bring on an attack. This was not a case of hysteria, (subsequent developments proving too sadly that the diagnosis was correct), as the lady, whose history has ever been regarded as a hopeless epileptic, and not only hopeless as regards the continuation of the disease but also the very serious deleterious effects upon the mind has an epileptic history and comes from an epileptic family.

Dr. Williams said he would like to ask, how doctor Spencer made the diagnosis of labyrinthian trouble in this case.

Dr. Bauduy replied he must refer the doctor to Dr. Spencer to answer that question.

Dr. Williams rejoined he asked that question simply for information, for he thought it impossible to make a systematic diagnosis in a child five and a half years old and not bright mentally—a child deaf, and that could not talk or otherwise make itself understood. It would certainly be a very rare condition, which was induced by a single injury involving both labyrinths at the same time; a trauma might injure one labyrinth, but it is not likely to injure both, simultaneously. The diagnosis correct or incorrect is based upon illogical grounds.

Dr. Bauduy said he felt it his duty to defend the diagnosis of his friend Dr. Spencer. He did not know the methods by which he arrived at his diagnosis, but they seemed conclusive to Dr. Tuholske, who had a long conversation with Dr. Spencer on that particular point, it being a very important factor in the case. The bi-lateral labyrnithian trouble is no argument against the diagnosis. Injuries may result bilaterally in almost any dual organ. In anticipation of a possible question which Dr. Fry might ask, as to what possible good trephining can do at the junction of the sagittal and parietal sutures, a little to one side of the longitudinal sinus, if there should be reflex disturbance the lesion, if there be one, is at the selected point of operation—that is at the site of traumatism, away from the fissure of Rolando, not in relationship to the ascending frontal convolution or ascending parietal; therefore out of the motor zone. We can not exactly limit the influence of motor disturbance of the Rolandic region; it is claimed there may be an extension of the motor influences to the root of the first frontal convolution, which must be very close to the site of this lesion, where the trephining is proposed to be performed; that being a neurological hope, even if a forlorn one—almost hypothetical in character; still it may form some basis of hope that the surgeon may be enabled to do the child good; and as Dr. Carson so ably said in a recent paper, the whole domain of cerebral surgery is new on account of the novel modes introduced; and there will be an immense amount of experiment in this direction which will be beneficial to those appearing on the stage in the coming decade. Therefore the operation is probably a justifiable one.

Dr. F. R. Fry said.—If there is any evidence of traumatism affecting the bone, though much less affecting the brain, that is the point to be considered first as the site for operation; and especially in a case where epileptic paroxysms are the prominent symptoms, and as there seems to be such a traumatism in this case of course that is the proper site for operation.

Respecting the diagnosis of bilateral trouble in the labarynths the speaker did not think it can be made in a child five years of age, endowed with the mind of a child only 15 months old. Not only is there an aural trouble but a psychological trouble as well.

Dr. Williams suggested the probability that this child ceased to talk, because it ceased to hear; the first trouble was probably deafness; this led to the cessation of talking. Therefore, if the case were under his care he should look in that direction rather than to the little lump to which reference was made.

Abscess in Head of Humerus.

Dr. Carson presented a specimen which shows very prettily what is supposed to be a tubercular abscess in the head of the humerus. The patient from whom it was removed this morning was seized eighteen months ago with pain in the shoulder for which he could not account, and upon consulting his physician, it was supposed to be simply rheumatism. This continued for some months, when an intermission occurred and the patient apparently recovered. This again was followed by a recurrence of the pain, and six months ago he says a boil appeared upon the front of the arm, just about the insertion, or just above the insertion of the deltoid; this was opened and a quantity of pus discharged; this was followed in time by other abscesses, and this by the development of numerous sinuses, one over the scapula, quite large and extending in several directions; but the main sinus lay towards the shoulder joint. There was also a large opening in the front of the arm, just along the anterior border of the deltoid muscle extending almost down to its insertion, as well as one posterior at the margin or border of the latissimus dorsi. Upon careful examination made by Dr. Gregory and myself earlier in the week, we failed to discover

diseased bone; the bone, so far as could be ascertained, was entirely covered with periosteum, but we determined to cut down, and, if any evidences of disease of the bone were found, remove them. This morning the speaker made an incision, which included the sinus in front of the arm, requiring very little division of new tissue. The bone being reached and an incision made through the periosteum, he felt a portion of the head of the humerus which imparted sensations satisfying that it was diseased or dead. The periosteum was then raised, and with a gouge an opening made in the front of the bone, which entered an abscess cavity. All the surrounding soft tissue was then separated, and the head of the bone lifted from the cavity surrounding it, and the diseased portion removed. The acetabulum was not diseased at all. With the curved scissors all the soft and diseased tissue composing the joint as removed, drainage tubes introduced through the sinus, so as to give me complete drainage, the cavity filled with gauze and a small quantity of iodoform, a bandage placed around the waist, and the patient put to bed in fair condition.

Report of Autopsy.—Extra Uterine Pregnancy.

Dr. Lutz presented a specimen of ectopic pregnancy removed this afternoon; it shows very beautifully the phenomena usually attendant in its present state—not having been immersed in alcohol. It was taken from a woman about 27 years old, post-mortem, and when removed the abdomen was slightly distended. On mak ing a median incision a large quantity of blood escaped. The omentum and small intestines were adherent in such a manner as to show an effort on the part of nature to form a barrier against the invasion of the general peritoneal cavity. In the pelvis was a large quantity of coagulated blood. On her right side was found an enlargement of the Fallopian tube. The left tube is perhaps in a condition of hydro-salpinx. On the right side is presented a classical extra-uterine pregnancy of the true Fallopian variety, and at this point is the site of the placental implantation, at which, it is well established, especially according to Mr. Tait, the rupture usually occurs. Through this opening the blood flowed, the covering becoming thinner and thinner and finally ruptured. The sac and the ovum are not older than the fifth or sixth week. The fœtus and placenta are in situ. This is one of the operable cases, unquestionably. In all likelihood she died of hæmorrhage and septic peritonitis; the peritoneum was inflamed. The speaker requested Dr. Henske to give the history of the case, which is as follows, viz.:

Clinical Report.—Case of Ectopic Pregnancy.

Dr. Henske.—On last Sunday morning at about 9 o'clock, I was called to the patient, who was about 30 years of age, and upon whom the Coroner requested Dr. Lutz to peform the post-mortem, and gave the following history: She was married about seven months ago; menstruated the last time end of February; her menstruations were accompanied with dysmenorrhœal pains with which she suffered for a number of years. She also informed me that she menstruated during last December, fœtus being about six weeks old. She missed her menstruation in March and April. The last four days before I saw her she told me she had considerable uterine hæmorrhage, and also passed something which she called fleshy, and which she considered to be a fœtus. When I saw her she was in considerable pain which extended all over the abdomen up to the thorax; she was suffering terribly. The pain had set in that morning rather suddenly, although during the night she suffered of slighter pains now and then; also on the previous day. When I examined her abdomen I found it very tender on pressure, and very tympanitic; when I made a vaginal examination I found the cervix considerably enlarged but hard, and also noticed a slight bloody discharge of offensive odor. When I examined the fornix I noticed in the right lateral fornix above, and also by bi-manual pressure to the right iliac region, that a tumor of some kind existed which I thought perhaps might be either a pyo salpinx or cellular abscess, or maybe an ectopic pregnancy. The uterine sound passed four inches deep. An accurate physical axamination was impossible on account of the extensive tympanitis. To judge from the history of the case I concluded that the woman had been pregnant and had aborted, and that the fleshy material she spoke of was the fœtus. I at once curetted the uterine cavity, removing nothing but blood clots and something like pieces of a decidua. I prescribed a narcotic to relieve the pain, and when I saw her in the evening she felt somewhat relieved although the pulse was 100, temperature 102°. Next morning she was comparatively free from pain except upon hard pressure upon the abdomen, which was still tympanitic. I examined the tumor on the right side again and felt it pretty distinctly. In the evening I was called again, but not being in, Dr. Klaykamp was called in. Soon after I saw the case again and was informed that she had been seized suddenly with very severe pains; the abdomen had become very much distended. Talking the case over with Dr. Klaykamp, we concluded that perhaps an immediate operation was necessary, and that the abdominal symptoms were probably due to internal hæmorrhage. Dr. Bernays was called in; he examined the case late in the evening. The patient at that time felt considerably better, but he also proposed an operation at once, thinking in all probability we had to deal with ectopic pregnancy, but the family refused the proposed operation. During the night I simply gave her a purgative and waited until next morning. When I saw the patient next morning I found the pulse 120, and the temperature 101.5. She was free from subjective pain, but pressure upon the abdomen which I found it to be very tender. Tympanitis existed to a greater or less degree, and I again proposed an operation but the family thought that as she was so much better it was unnecessary. In the evening she grew worse again, more pain

and tympanitis; the temperature went up to 104°, and the pulse a little over 120. The next morning when I visited her I was shown something that the patient had passed which looked to me as if it was a sac—decidua—which we also find in ectopic pregnancy. It was more or less decomposed. I scraped out the uterus again to remove all the shreds and then continued the treatment usually employed for peritonitis. The next morning vomiting set in while tympanitis and tenderness had increased, and the same evening Dr. A. S. Barnes saw the case and examined it carefully and came to the conclusion that it might be a case of ectopic pregnancy and advised also an operation. Next morning Dr. Bernays and Kinder were called in again and we got ready for laparotomy; but at the last minute, the mother of the patient and her relations refused to allow us to proceed. During the following night the patient died.

ST. CHARLES COUNTY MEDICAL SOCIETY.

MEETING OF MAY 19, 1891, AT WENTZVILLE, MO.

The St. Charles County Medical Society entered upon its fifth year under the most auspicious circumstances. Annual meeting was held at Wentzville, Mo., on the 19th inst., and eighteen members responded to the roll call. Among those present was Dr. Edmund Marheincke, of St. Peters, aged 90 years, who, in a neat little speech, thanked the members of the Society for electing him honorary member. After the reading and approving of the minutes of the last meeting, the election of officers for the ensuing year was held with the following result:

President.—Dr. C. M. Johnson, of St. Charles.
Vice-President.—Dr. Henry Brandt, Cappeln.
Secretary.—Dr. H. H. Vinke, of St. Charles.
Treasurer.—Dr. J. T. Evans of Wentzville.

Hereupon the meeting adjourned until 1:30 P. M. Upon reconvening Dr. Brice Edwards read an interesting paper on the subject of "Catalepsy." The paper elicited extensive discussion which was participated in by Drs. Middlekamp, Baltzer, Vinke, Evans, Tally and Johnson. The President had chosen for the subject of his paper "Cholera Infantum," and he handled it in a masterly manner.

The following resolutions were introduced and adopted, and the Secretary was instructed to send a copy of same to the Secretary of the Missouri State Medical Association:

Resolved, That we learned with much regret that the bill relating to medical education failed to pass the last legislature, and

Resolved, That we emphatically disapprove the effort of some medical men in this State, who, more interested in the welfare of some second or third class medical college than in medical education in general, succeeded in having said bill killed in the Senate, after it had passed the House by a large majority, and

Resolved, That we are of the opinion that an attendance of at least three years at some reputable medical college is absolutely required for the acquirement of a thorough instruction in the different branches of medicine.

The following supplementary resolutions were introduced by Dr. H. H. Middlekamp, and likewise adopted.

WHEREAS, The science of medicine has made such vast and rapid strides in advance and as it is absolutely necessary that the members of the profession should have all the acquirements of the science of medicine as known at the present day; therefore, be it

Resolved, That we believe the time has arrived when the law making power of our State should adopt a law for a Board of Medical Examiners, before whom all future applicants shall go for the legal right to practice medicine and surgery in the State of Missouri, and

Resolved, That we would most respectfully urge our next Legislature to pass such a bill.

It was moved and carried that all papers read at the meetings become the property of the Society, and be turned over to the secretary.

It was also moved and carried that the President's annual address be published in the ST. LOUIS WEEKLY MEDICAL REVIEW.

A vote of thanks was tendered the out-going president for the courteous and efficient manner in which he presided over the deliberations of the Society during the past year.

Drs. Hegeman, Carter, Evans, Lindsay and J. A. Talley were appointed to read papers at the next meeting, which will be held at O'Fallon, Mo.

Thereupon the meeting adjourned.

H. H. VINKE, Secretary.

SOCIETY NEWS.

MISSOURI MEDICAL ASSOCIATION.

After a session of three days this Association adjourned May 22. A very goodly number of physicians were present, all portions of the State being well represented, except the South East and the South-West. We know there are physicians of worth and reputation in these sections whose voices the Association would be delighted to hear in discussions and in contribution of papers. Credentials of good standing in the local Societies are all the qualifications necessary to secure membership, and the payment of the usual assessment—three dollars. We hope next year to see a large delegation at Pertle Springs Warrensburg. Officers elect are: President Dr. L F. Prewitt, St. Louis, Vice-Presidents Drs. Dulen, Nevada; Brown, Hamilton; Paquin, Columbia; Potter, St. Joe; Hugh Smith, Carrolton; Recording Secretary, Dr. A. Berger, Kansas City; Assistant Secretary, Dr. Fry, St. Louis; Treasurer Dr. C. A. Thomson, Jefferson City.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

Pennsylvania State Medical Society, Reading, June 2, 3, 4 and 5.

State Medical Society of Wisconsin, Madison, June 3, 4 and 5.

Delaware State Medical Society, Rehoboth, June 9 and 10.

Maine Medical Association, Portland, June 9, 10 and 11.

Massachusetts Medical Society, Boston, June 9 and 10

South Dakota State Medical Society, Chamberlin, June 10, 11 and 12.

Rhode Island Medical Society, Providence, June 11 and 12.

Michigan State Medical Society, Saginaw, June 11 and 12.

New Hampshire Medical Society (centennial), Concord, June 15 and 16.

Colorado State Medical Society, Denver, June 16 and 17.

Ohio State Medical Society, Put-in Bay, June 17, 18 and 19.

Minnesota State Medical Society, Minneapolis, June 18, 19 and 20.

Medical Society of New Jersey, Long Branch, June 23 and 24.

SELECTIONS.

EXAMINATION QUESTIONS FOR ENTRANCE TO THE MEDICAL CORPS OF THE U. S. NAVY.

THESIS.

Describe the Diseases of the Kidney.

[ORAL EXAMINATION.]

Literary and Scientific English Grammar.

Give formation of possessive case.

Figures of orthography.

Figures of rhetoric.

Parts of speech.

Principal parts of regular verb. How formed?

Principal parts of irregular Saxon participles.

Latin Grammar.

How many declensions of nouns? How distinguished?

Same of adjectives.

How many conjugations? How distinguished?

What are principal parts of verb? Give example?

What is ablative absolute?

Passage of Cæsar to read, translate and parse.

Latin prescription. No abbreviations. Quantities, directions, all Latin.

German.

Some German script to read and translate.

Passage from reader to read and translate.

What German books had candidate read?

History.

What did the Greeks call themselves? Why?

Who settled Greece?

What were some of the countries of ancient Greece?

Who was Lycurgus? Solon? Draco? Pericles? Leonidas?

Who was the greatest sculptor of Greece?

What style of architecture was the Parthenon? To whom was it dedicated? What celebrated statue did it contain?

Describe the Persian wars.

Who saved Greece at Marathon?

Generals on both sides at Thermopylæ? Platea? Salamus? Mycalæ?

What was the government of Athens? Of Sparta?

Who was the legendary first settler of Rome? Whom did he marry?

What were the later wars of Rome?

Tell all about Hannibal's campaigns, all the battles he fought in Italy and with whom. Who finally conquered him, and where?

Who formed the first Triumvirate? The second?

What races settled Europe? What modern races from the Celts? From the Teutons? From what race are the Russians?

Who was Charles V? Who were the Kings of England and France in his time? What friendly meeting did the three have?

Who succeeded Charles V?

Who were Henry VII's wives? Who was his minister? Name the great men of his reign. Who succeeded him?

Who was the mother of Edward VI? Of Mary? Of Elizabeth?

What King of France ruled longest? Who were the great men of his reign? Who the greatest engineer? Who was mother of this king? Who did he marry? Name all the rulers of England during his reign.

What war in Queen Anne's time? What great English general? What battle did he win? Who was Anne's prime minister? Name all the great literary men of her time.

Who was Charles XII? Tell about him.

Describe the Mexican war. What were the chief campaigns? Give all the battles of Taylor and Scott.

Geography.

What city in South America on the equator? In what country is it?

What other cities on the west coast of South America? In what countries are they?

What is the sea-port of Lima?

Where is New Zealand?

Is Cape Horn or Cape of Good Hope further south.

Where is Cape Horn? On what island? What strait between it and the main-land?

What is the capital of the Phillipine Islands? What island is it on? What is its latitude?

What is the latitude of London? Of St. Petersburg?

Between what degrees of latitude does Great Britain lie?

How would you sail from Philadelphia to St. Peters-

burg? What capes would you pass between in reaching the Atlantic? What are all the waters you would pass through, and in what direction would you sail in each? What towers would you pass between in Straits of Dover? Names of passages between Norway and Sweden and Denmark. What city in Denmark do you pass near? What fortress do you pass just before reaching St. Petersburg? On what river is St. Petersburg?

Physical Geography.

Why is it colder on a mountain than in a valley?

Why is the sky blue?

Give causes of trade winds.

Give principal ocean currents.

Describe Gulf stream and give its causes.

What is a Sargosso sea? Why so called?

What is an isothermal line? Course of that passing through N. Y., traced W. & E. in winter and summer.

Describe glaciers. What is the line of their termination called? How do they pass down?

Explain the bending of ice.

Why is it that a mountain on an island in the ocean or on a cape near the ocean is always surrounded by a cloud which the wind, though constantly blowing, is unable to blow away?

Astronomy.

What do we see in the starry heavens?

What is the solar system?

What is the most remote planet? Its distance from the sun? Tell about its discovery.

Between what planets are the Asteroids? How many have been discovered? Give names of some.

Who discovered Uranus? What other names were proposed for it?

Length of martial, venereal, mercurial year?

What are the relative size of Venus, the earth and Mars?

What planet is most like the earth?

What is the inclination of the earth's axis to the elliptic? What does this cause?

Where does the sun stop in its passage South? North? What are these points called?

What is solstice? Equinox? Perihelion? Aphelion? Apsides? Nodes?

What is the orbit of the earth?

What are eclipses? How caused? Of moon? Of earth?

What occurs when the moon is at its nodes? When at quarters?

What is occultation? Parallax? Transit.

What is the velocity of light? How discovered?

How long does it take light to travel from Neptune to the earth?

What is the distance of the moon?

Length of day of the moon?

Topography of the moon?

Botany.

What are the parts of a flower? Parts of stamen? Of pistil?

What is a perfect, a complete flower?

What is a monocotyledon, a dictyledonus plant?

Describe an exogenous plant. How does it grow?

Anatomy of stem.

What is an unibel? A corymb? A raceme?

What is the flowering cluster of convallaria?

What is the difference between root and stem?

What is a rhizome? A tuber? A comi? A bulb?

Geology.

What kind of rocks are impervious to water?

How does water get through some strata?

What causes springs?

Name the geological ages from the oldest up. All the subdivisions and strata under each.

Name the chief fossil plants and animals in each age.

What are coprolities? Belemnites?

Give the Devonian plants.

What are ganoid fishes? Difference between fossil ganoids and those of the present day?

Characteristics of carboniferous age plants? Of atmospheric and climatic?

What is the reptilian age? Name and describe the principle reptiles existing then.

Divisions of Jurassic. Why called oolite?

Divisions of Tertiary.

Meaning of the above names in two last questions.

Zoology.

Give the divisions of the animal kingdom.

Divisions of molluscs.

What are the most common lanielilranchiates? What kind of shell have they?

Divisions of articulates? Of insects?

What is pathogenesis? Give examples.

What are pleiopods bujozoa?

What is alternate generation? Give examples.

Give the orders of mammals. Of birds. Peculiarities of bones of birds.

What is a syllogism? How many terms has it?

What are moods?

What does Barbara Celarent, etc., help us to remember?

What is inductive and deductive reasoning?

Geometry.

What is Geometry?

What is a theorem? An axiom? A scolium? A lemma? A problem? A corallary?

What is scalene triangle? An isosceles? A right-angled triangle.

What is a trapezium? A trapezoid? A parabola? Hyperbola? Their properties.

[WRITTEN MEDICAL EXAMINATION.]

Anatomy.

Describe the triangles of the neck and give their contents.

Give anatomical description of hip-joints and rotator muscles.

Obstetric.

Describe the mechanism and treatment of breech presentations

Medical Jurisprudence.

Describe the modes of resuscitation of the apparently drowned, and give the post-mortem appearances in death from drowning and the medico-legal points involved in such cases.

Materia Medica.

Describe the vegetable diuretics and give their thera peutics.

Chemistry.

Describe the compounds of oxygen with sulphur physics.

Physics.

Give the composition and properties of atmospheric air.

Physiology.

Describe the composition of the blood. The circula tion.

Hygiene.

Describe the different methods of sewage removal.

Practice of Midicine.

What is pernicious fever? Give its varietie and treatment.

What are the causes, symptoms, pathology and treatment of angina pectoris?

Surgery.

Give the anatomy of non-congenital inguinal hernia, and describe the operation for relief of strangulation.

Give the symptoms, pathology and treatment of carbuncle.

[ORAL MEDICAL EXAMINATION.]

Anatomy.

Bone; composition, development, histology, structure, kinds of examples under each, differences between long and flat.

Description of vertebra; differences between cervical, dorsal and lumbar; pecular vertebra.

Description of rib; of peculiar ribs; how many ribs.

Description of sternum.

How many teeth; difference between lower and upper molars.

Bones of hand and foot; synovial membrane of wrists; number and arrangement. Same of ankle.

Bones forming orbit, in order.

Muscles of front of arm; of back of arm. Same of thigh.

Muscles forming anterior and posterior pillars of fauces.

Muscles of tongue.

Muscles attached to hyoid-bone.

Muscles of pharynx attached to styloid process of temporal bone. Same of ligaments.

Shoulder joint; its action; difference between it and hip joint in action.

Insertion of bicep and pron. rad. teres.

Minute description of kidneys.

Histology of arrangement of tubules and blood-vessels.

Description of bladder; ureter.

Relations of mode of entering-bladder.

Manner of catheterizing.

Minute description of penis; coverings of testicle.

Histology of vas deferens; general course and relation.

Femoral hernia; general course; covering.

Description of Hesselbach's triangle.

Difference between direct and oblique inguinal hernia.

Description of spleen; histology.

Divisions of male urethra.

Relative length and calibre of glands of stomach; of duodenum; ileum; large intestine; hemorrhoidal blood-vessels; vesical blood-vessels.

Deep and superficial palmar arches; arteries forming them and how to locate them.

Branches and distribution of all main arteries and parts they suppy.

Circle of Willis.

Internal pudic branches; course and distribution.

Tympanic arterial plexus.

Vessels giving off external and internal plantar; description of them, and their communication with dorsal vessels of foot.

Intercostal arteries and spaces supplied by aortic, int. mam. and sup. intercostal, respectively.

Portal circulation; external jugular vein.

Complete description of heart.

Anatomy and histology of eye and ear, full.

Brain; membranes of, spaces of, venous sinuses.

What would you see at a section on the level of corpus calosum?

Ventricles of brain; their formation, position, communication, boundaries.

Describe the fifth nerve; all about its ganglia and their roots.

Chorda-tympani; origin, course, distribution and functions.

Obstetrics.

Vertex presentations; varieties, their mechanism and terminations, usual and unusual.

Same of face presentations.

Treatment of impacted face presentations; transverse presentations; their termination and treatment.

Placenta prævia; varieties, cause, symptoms and treatment.

Dimensions of female pelvis and fœtal head.

Description of Cæsarean operation, its modifications and technique.

Description of gastro-elytrotomy; line of incision; advantages claimed for; especial precautions to be observed.

Smallest conjugate diameter justifying craniotomy.

Medical Jurisprudence.

Mode of death, and post-mortem appearance of hanging.

Differential diagnosis between death by hanging and death by strangulation; of suicide.

Treatment of opium poisoning in full detail; some of phosphorus poisoning; antidotes.

Treatment of strychnine poisoning, and differential diagnosis between it and tetanus.

Coal gas poisoning; treatment; difference between it and poisoning by CO_2; in which case would progress be worse, and why?

Dose of atropine you would use in opium poisoning, and precaution.

Doses of antidotes in phosphorus poisoning.

Manner of using stomach tube, etc.

Physics.

What are the general properties of matter?

What is heat?

What is the thermometer?

Give a complete description of all the steps in the manufacture of thermometers. What substances are used, and why?

Describe a clinical thermometer, and give all the differences between it and an ordinary one.

Describe maximum and minimum thermometer; mode of using and setting.

What is a barometer? What substance is used in it?

Describe an aneroid barometer.

What is flame? Why are ordinary flames yellow.

What is the relation between luminosity and the heat of flames.

Give examples of hot flames.

What does luminosity depend on?

What is light? Theories of?

Name all sources of light.

Name all artificial lights.

Divisions of white light, and causes.

Velocity of light.

Laws of reflection.

Laws of refraction.

What is a prism?

What is spherical, and what achromatic abberation? How are they corrected?

What is a microscope?

A telescope?

What kind of telescopes were used formerly, and are used now?

What is the largest telescope? What are its dimensions?

Have reflecting microscopes ever been used?

What is micro photography? What American has done much to develop it? What light it used?

What is electricity?

What is magnetism?

What are all the forces that act on the compass?

What is terrestrial magnetism.

Where is the magnetic North pole?

What is deviation of the compass; causes, and how corrected?

What are the difficulties of navigating in steel ships How overcome? Is the correction permanent?

In ship building, how should the plant be situated in regard to the points of the compass?

What is correlation of forces? Conservation of energy?

What bodies, besides iron, have magnetic properties?

What is the composition of coal gas?

What are isogonic, isoclinic, isodynamic lines?

Chemistry.

What is chemistry?

How would you explain to a child the difference between physics and chemistry?

What is the old chemistry? The unit of old chemistry? The old formula of water? All the allotropic forms of C? All the mechanical uses of C in all its forms?

What is the composition of printers' ink?

What is a chemical reaction? Give example.

What is a test? Mutual test? Give examples.

If you pound up $BaCl_2$ and $CuSo_4$ in a mortar, what will be the result?

What is law of reactions on mixture of compounds in solution?

What common mineral white paints are used in domestic painting?

Which is the best for the interior of a house? For the exterior? For water closets?

What is lead mixed with? What kind of linseed oil?

What is organic chemistry? What is it sometimes called, and why?

What is a carbo-hydrate? A hydro-carbon?

Name some of the hydro-carbons.

Give all the steps and agents used in quantitative analysis of a carbo-hydrate.

What elements enter into the composition of albuminoids?

How would you analyze, quantitatively, a piece of beef steak?

(Examiner gave condidate a common lead pencil and told him to tell all the elements and compounds of which it was composed, down to the gilt of the letters of the marker's name).

Hygiene.

What are State boards of health? By what authority constituted? How organized? Are any but physicians ever members? Why?

What State first had a board of health? Has it had one continuously ever since?

What are the duties of a board of health?

Have all the States such boards now?

What is quarantine? By what branches or branch of the government authorized?

Name all the diseases quarantined against.

If a ship came into port having small pox aboard, what measures would you adopt, and how long would you keep the ship in quarantine?

Would you ever detain a ship having no cases of infectious diseases aboard and having had none during the voyage.

What measures would you adopt in case of a ship having cholera aboard?

Of a ship having yellow fever, how would you disinfect the ship? the clothing?

If cholera is prevalent, what precaution would you take in regard to drinking-water?

What are the best agents for disinfecting a room or ship.

How do you use them practically? Full details.

Why are So, and Cl. better than carbolic acid for these purposes?

Would you allow a small-pox patient who had been thoroughly disinfected and dressed in clean clothes to go about before desquamation was completed?

How about a convalescing cholera or yellow-fever patient?

Physiology.

What is tissue? Are tissues converted one into another? Name all kinds of tissues.

What is a cell? Do all cells have capsules? Name some that do not.

What is the accepted theory as to transformability of cells?

Does the present opinion incline more to greater or less?

What is an organ?

What is a function?

What is a gland? Are all glands organs or are all organs glands? Name some that are not.

What is the chief source of heart in the body? The next? The next?

Mechanism of regulation of heat?

What one gland is a great source of heat?

Give all the functions of the spleen.

What is the origin of the red blood corpuscles? Where their end and where destroyed?

How do white corpuscles get through blood vessels?

Give all the processes and describe the changes and agents producing blood corpuscles from the time a cubic inch of steak is taken into the mouth until it is converted into tissue, transformed in making heat, or excreted.

Functions of sympathetic nerves? Of lymph glands? Of red marrow of bones?

Where is glycogen made, and from what? Is it more like a starch or a sugar?

Name all the refractive media of the eye? Functions of the iris?

How is the amount of light admitted to the eye regulated?

What is the nerve supply of the different parts of the ciliary muscle?

Mechanism and nerve supply of accommodation?

What structures of the eye are active in color perception?

What is chlorophane? Zanthophane?

Materia Medica.

Therapeutic uses of heat and cold, and all the methods of applying each.

Name all the animal drugs and the sources, preparation and uses of each one.

What parts of plants are used in medicine?

Name drugs that are rhizomes.

Drugs from cones? From flowering tops?

What drugs from woody trunks? Botanical names and natural orders of all these drugs named.

What is opium? How prepared? Varieties? What per cent of morphine?

What are the varieties of poppy? Why called black and white?

Where does the best opium come from?

Give the principal alkaloids, their differential physiological action.

What two groups?

Give all the officinal preparations you can and tell what they are. Examples under some of them.

What trituration is officinal? Its dose?

What oleo-resins are officinal?

Give all the preparations of arsenic. Doses, common names of the solutions, therapeutic uses.

For what is arsenic used in phthisis?

What is squill? Natural order, botanical name, part of plant, preparations, therapeutic uses.

Same of rhubarb.

What are antispasmodics? For what used? Name some of them.

(About thirty crude drugs presented, asked candidate to recognize and give common and botanical names, natural order and habitats.)

Practice.

What are divisions of symptoms?

Go through the whole body, system by system, organ by organ, give all the symptoms pertaining to each, and what do they indicate? (As symptoms pertaining to the teeth, gums, tongue, pharynx, œsophagus, nares, stomach, etc.)

Give in detail the stages of lobar pneumonia, clinical history, symptoms, pathological appearances in each, and treat a case through all its courses.

What are the terminations of pneumonia?

What is crisis? Lysis?

What are the varieties of pneumonia?

Many questions asked on typhoid, typhus, intermittent and yellow fevers.

Also temperature chart of typhoid; meaning of sudden temperature; differential diagnosis between typhoid and typhus; treatment of each.

Also many questions on the classification of skin diseases; all the principal lesions.

What are some pustular diseases? Some macular, papular, vesicular, etc.?

The animal and vegetable parasites?

Skin diseases and names of parasites causing them.

Candidate was asked every worm God ever made. (He gave all mentioned by Flint.)

Name diseases caused by each and treatment.

(Candidate was asked a great many more questions in this department.)

Surgery.

What is inflammation? Kinds of, and all the methods of treating surgical inflammation, abortive, palliative and curative? All the different methods of applying

heat and cold and when each should be employed?

Stricture: Kinds, position, causes, and all the methods of treatment in full detail, with descriptions of the different operations and instruments used and names of inventors.

The different renal and vesical calculi, their composition, relative frequency of occurrence, etc.

Non-operative treatment of calculi.

All the operations of cutting and crushing. Full description of every operation, names of instruments used and tissues incised in each, and treatment subsequent to operation.

Hæmorrhoids: Causes, varieties, and all the methods of treatment in full detail, with full indications of each; line of treatment, instruments used and materials of ligatures, etc.

Position and causes of strictures of rectum.

Treatment of fissures and fistulæ.

Operative procedure in gun-shot wounds of abdomen. How would you treat the wounded gut? How suture? What named stitches would you use? Describe each.

Fractures, particularly positions of fragments?

Kinds of deformity and muscles active in causing them?

Fractures of clavicle, humerus, femur, tibia and patella? All the different methods of treating these fractures, with many named methods.

Describe Desaults', Moore's, Fox's bandage; gauntlet and semi-gauntlet. Give uses of each.

Apply Gibson's, Barton's four tailed,spica of shoulder, recurrent of hand, and fore-arm, Velpeau's double spica of groin, figure-eight of foot, and posterior recurrent of leg.

Define technical name of nearly every disease to which the eye is subject; as, which is symblepharion, anchyloblepharion, ectropion, entropion, and a great many others (some of which candidate had never heard of or seen, and did not remember ten minutes after being informed of their existence).

Ear diseases and their complications.

Examination of three specimens of urine and report on same.

Microscopy: The technical name of every part of the microscope (the examiner pointing them out); recognition of six microscopic objects:

1. Sills of fibre.
2. Pulmonary tissue.
3. Triple phosphate crystals.
4. Bacillus.
5. Pediculus pubis.
6. Linen fibre.

Clinical examination of a case in the hospital and written report, giving history, diagnosis, prognosis and treatment, the latter being a prescription or advice.

Surgical operation on the cadaver; ligation of the brachial artery; ligation of the posterior tibial in calf of leg; ligation of lingual in lingual triangle; amputation of thumb at metacarpal joints; amputation of middle finger at metacarpo phalangeal; amputation of foot (Lisfranc); amputation of shoulder (Lowry's); amputation of fore-arm in middle (antero-posterior flaps).

OBITUARY.

DR. HUGO AULER.

The death of Dr. Auler, a member of the St. Louis Medical Society, being announced at its last meeting, a committee on resolutions respecting this event was appointed, consisting of Drs. Dorsett, Jordan and Guhman. The report of the committee was unanimously adopted; and also a delegation from the Society to attend the funeral obsequies on Monday, May 26.

PUBLISHERS' NOTICES.

Why Do You Pay Postage?

When you can save $8.00 per 1000 pieces through The Graffort Advertising Co., Drawer 169 De Graff, Ohio. Signs, Circulars, Catalogues and Samples distributed by trusty men over Western Ohio.

White Sulphur Springs and Maj. Eakle.

Since the close of the last season, the justly celebrated Greenbrier White Sulphur Springs has been sold to a joint stock company recently organized, and known as the Greenbrier White Sulphur Springs Company. This sale will cause no change in the management of the Springs during the coming season of 1891. Maj. B. F. Eakle, whose management for the last seven years has added so much to the reputation of the place, continues as Superintendent, and this fact alone may warrant the prediction that "White Sulphur" will receive her share of those in quest of health and happiness.

Neurosine.

This is a new and powerful neurotic compounded by the Dios Chemical Company of St. Louis, which is the same company that manufactures "Dioviburnia," so highly commended by the profession everywhere, and is another evidence of the progress in medicine. Although we have not had the pleasure of giving "Neurosine" a trial, suffice it to say, the formula is such it could not be otherwise than a most powerful neurotic. The formula is as follows: Each fluid drachm contains five grains each C. P. bromides of potassium, sodium and ammonium, one-eighth grain bromide zinc, one sixty-fourth grain each of extract of belladonna and cannabis indica, four grains extract lupuli, and five minims fluid extract cascara sagrada with aromatic elixirs. This enterprising company proffer to send any physician who will pay express charges a sample bottle free.—*Richmond, Va., Practice.*

Popular Health Resorts, Lebanon, Mo., and Eureka Springs, Ark., reached via The Frisco Line. For illustrated pamphlet giving full particulars, address D. Wishart, Gen'l Passenger Agent, St. Louis, Mo.

ORIGINAL COMMUNICATIONS.

"THE MOTIVE AND METHOD" OF ELECTRICITY IN PELVIC INFLAMMATIONS.

BY GEO. F. HULBERT, M D., ST. LOUIS, MO.

Read before the Missouri State Medical Association, at Excelsior Springs, Mo., May 19, 20 and 21, 1891.

The question of the moment, in pelvic diseases, is not so much what they are and how diagnosed, judging from current literature, but rather how they shall be treated. It is pelvic surgery versus electricity. From an individual standpoint it seems to be the "pelvic surgeon" versus the "electrician."

The spirit and manner in which the argument has been carried on has varied, and it is to be regretted that the variation has consisted more in the presentation of the *ego* of each writer or speaker, than in the facts presented, or the reasons for the "faith that was in them." Notably has this been the case with the "pelvic surgeons." Dr. Anna M. Fullerton, in the November, 1890, issue of the *Annals of Gynæcology and Pædiatry*, presents us with a paper on "Surgery or Electricity in Gynæcology," and while she says some real hard things about the electricians, *so-called* (the italics are ours), it is done in such a calm, gentle, dignified way that we turn from the excellent paper feeling better that we have read it, and satisfied that she has spoken truly and well of the subject, *from her standpoint.* Dr. R. B. Maury, of Memphis, Tenn., is another who, at the Atlanta meeting of the Southern Surgical and Gynæcological Association, Nov. 10, 1890, presents us with a paper on "How Shall We Treat Our Cases of Pelvic Inflammation?" and we were pleased to read it. At the same meeting, Dr. Joseph Price, of Philadelphia, presented a paper on "The Motive and Method of Pelvic Surgery," and we regret that, while it is full and bristles with facts and truths, ably and forcibly presented, it is so filled with the dogmatism and inuendo, that creep into the sayings and writings of some highly and largely successful workers, that we feel chagrin and beligerancy pervade our mentality, if not in hearty accord with the author.

A perusal of the remarks of the same gentleman in the discussion at the October 2, 1890, meeting of the Philadelphia Obstetrical Society only serves to add "fuel to the fire."

It is to be sincerely regretted that so able, courageous and successful a worker, one who has, so to speak, "gone out in the highways and byways" and compelled conditions, far from favorable, to bend and succumb to the power that was evolved from the knowledge, force and devotion of the operator, allows himself to "stalk, and strut, and bellow," in the sight and hearing of the profession, in such a manner that the rational and Christian verdict must and *will be* that the *ego* is "*drunk with sucess.*" We fully recognize and value the necessity of friction in progress, but respectfully submit that the injection of so much of the "personal equation" is not only detrimental, but seriously inhibitive of the spirit of fairness and the discovery of truth.

Dr. Jos. Price is only one of a type of many eminently successful men, who have entered into the full realization of their power and mastery of the work they have in hand, and any other method, motive, or principle of action save those in which they have become drilled, skilled and schooled, appears as wanting in some one or many, to them, necessary features; to the extent that they fail to discriminate, discern or desire that which others of equal mental capacity, ability and opportunity consider and know by equal *ultimate results* to be worthy and of value.

It is not our purpose to enter into any argument with the pelvic surgeon in the matter under consideration, for the simple reason an argument is useless, there being no common ground of agreement from which to start, but we do desire, and we trust in fair manner to present, to the best of our ability, a protest, and emphatic denial to the unjust and ignorant tirade, which Dr. Joseph Price has presented against electricity and its use in inflammatory diseases of the pelvis.

In doing so we wish it distinctly understood that we do not propose to accept the criticism that electricity has unjustly had to carry at the hands of the pelvic surgeons, on account of its use in the hands of every tyro who glibly talks and prates of his use of electricity in diseases of women. In this field, as well as in pelvic surgery, we wish it constantly borne in mind that special study, experience and knowledge is just as essential and *is demanded*, not only of the agent employed and its physics, but of the methods and principles that underly them and the conditions treated.

We demand, therefore, from the pelvic surgeon at the start this distinction and discrimination, that the "electrician" be separated and freed from the bad work and methods of the pseudo-electrician, as rigorously as the pelvic surgeon discriminates against his special microbe, the pseudo-pelvic surgeon, when he attempts any comparison of worth and value.

THE MOTIVE.

The motive of those who have intelligently applied electricity to diseases of the pelvis, has been and will continue to be a matter of pure conservatism. It was created from an observation of the ever attendant danger and wholesale slaughter of the victims of pelvic surgery in the past, and to a less extent to-day, and from the knowledge that electricity was capable of producing definite, positive and determinate phenomena in the field of physiology. It received a healthy impetus from the demonstration of the fact that electricity when applied after determinate methods, modified ennervation, exalted circulation and promoted nutrition. In short, that which is termed life or vital force gathered and received an added energy.

Its application was the result of reason and logical

conclusion, from the known and observed results of unaided natural processes, in accomplishing a more or less perfect recovery, from the very same conditions which, in the recent past, were, and are, to a large extent to day positively demanding, in the mind of the pelvic surgeon, operative interference. The conservative mind, not content with the progress attained and great benefits derived from the pioneer work of pelvic surgery, conceives that it is still farther a matter of real advancement if with our now perfect understanding of causes and conditions in pelvic disease there be accomplished as good an ultimate result without the persistent and ever attendant risk that follows in the wake of the surgical operation. In short it is maintained and we conceive rightly so, that *perfection* is attained *only when recovery is accomplished through natural influences and processes.* The motive, therefore, it would seem, is worthy of respectful consideration.

The Conditions.

To a minor degree it is concluded that in pelvic disease there are some conditions in which the electrical treatment is beneficial and worthy of trial. In this class be long those which are termed uterine. To a still less degree as we approach the adnexia is the electrical treatment accepted as of any value. Among those who have made a study and use of electricity in pelvic disease, it is maintained, by the large majority, that all uterine and adnexial troubles are amenable to treatment by electricity, save in the presence of active inflammation, the presence of suppuretion, or occlusion with distention of the tubes. By all, until very recently, suppurative distension of the tubes has been considered as absolutely interdicting the use of electricity and demanding surgical interference. The conflict of opinion between those who have not and those who have studied and used electricity is perfectly natural, for the simple reason that the judgment of the first is based upon ignorance, the latter upon, at least, some degree of knowledge. The conflict between those who have is simply due to a difference in the degree of knowledge attained, both of the agent used and the conditions treated, the methods and appliances adopted and the understanding and appreciation of causes and effects. When we consider that electricity is a known definite quantity, capable of producing uniform effects under uniform and pre cise conditions, we need not be surprised at the choas and the conflict of opinion and result. When we adopt and reach uniformity in diagnosis, method and appliances, chaos will become order, defeat, success. The full realization of this fundamental principle regarding electricity and its use, of necessity, leads to the inevitable conclusion that the applicability of electricity to known conditions, dependent upon known causes with known effects, is universal and unlimited. For no other agent or remedy known in medicine can this be said. Under absolute control, certainty of application and pre cision in effects, it would seem to be the ideal in scientific medicine. We must conclude, therefore, that the difficulty is not with the agent used nor the disease treated that the want of uniformity, and disaster is due, but to the method and the individual who uses them. In treating of the conditions, as understood by the writer, we can only cover the ground in a statement of the following propositions. The philosophy and reasons that lead to them must be sought from standard and well-known authorities, as well as the judgment and experience of the reader.

1. The character of the organism (*the woman*) in which we find the conditions develop. This is the remote cause; the vulnerability; the determining factor as to degree and extent.

2. The trauma or proximate cause.

This contains two elements, mediate and immediate. The first, influence from environment, as exposure, fatigue, traumatism, etc. The latter the specific or infective influences auto or hetrogenetic.

3. The local expression or result of the foregoing, the structural and functional aberrations. The inflammation.

4. The adventitious products, increased secretions, hyperplasiæ, adhesions, serum, blood and pus.

5. The systemic degeneration of the organism (*the woman*) pari passu and at the full development of the local expression of the affection.

In juxtaposition to the conditions, rightly must be placed the natural inherent capacity and methods of repair possessed by the organism. Herein are placed the significant evidences and illustrated the principles and processes by and through which, *if they be brought up and maintained to a sufficient degree of perfection*, the local expression of the disease and its products is overcome and cast off with perfect safety and efficiency. The facts and observations upon these statements are sufficiently well known and understood to prevent any further extended notice than to say that the past and present are reasonably full of cases wherein after many and varied preventable unpleasant experiences on the part of the patient, complete recovery and restoration of health has been accomplished, and this even in many instances in spite of considerable ill-advised treatment. Time and natural capacity have won the battle. The pertinent question where nature has failed is, to what extent was assistance needed to insure success? The rational conclusion of the past is that the presence of these pelvic inflammations are not necessarily fatal, or productive of persistent invalidism, and it is only after much neglect and the continued operation of varied preventable unfavorable influences, that they pass or exhaust the capacity for perfect recovery.

From the knowledge that we now have of the conditions and causes present in pelvic disease it would seem possible to formulate and agree upon a correct truthful statement of the problem to be solved.

For this purpose we present the following (we here deal with local conditions):

1. The direct cause is the implantation of specific or septic organisms upon a favorable soil.

2. The immediate result is inflammation, which in

regular order invades from without inwards, from the site of implantation to the point, that it may remain diffused through the tract of invasion, or become localized.

3. That the secondary result is the production of increased altered secretions, as mucous, serum, blood or pus, associated interstitially with congestion, exudation, or hyperplasia; superficially or without the tissues, with exudates and adhesions, and in the presence of occlusion and distension of the Fallopian tubes with pus, with death and destruction of the epithelia of the lining membrane.

4. That upon the destruction of the exciting active cause, the certain tendency is toward a subsidence of the immediate result, the inflammation, provided a new element is not introduced, such as the organism of decomposition of the fluids retained within the tubes or peritoneal cavity and the ultimate repair and recovery of the diseased part accomplished. The removal and destruction of the retained fluids and accompanying organisms, established, the same tendency and result is attained where the original exciting organism is also destroyed.

5. That the development of exudates, adhesions and hyperplasia is adventitious and protective to the organism of the host, and they become in the abscence of the exciting organism or death of tissue, purposeless, the natural tendency being toward absorption and removal. Their persistence in a mild degree is innocuous and not incompatible with a perfect degree of health and well-being.

6. That the restoration of structure through natural channels after disease may result in function being more or less inoperative, but experience and observation clearly prove where this is the result, in the class of diseases under consideration, that this is not incompatible with health.

The rational conclusion from the foregoing propositions is this: That we find it is not an impossibility for recovery to ensue through natural channels, provided that the capacity for repair is effectively maintained, and that while the organism in the result attained may not be brought back to its original perfection in structure and function, the disability that remains is not destructive nor incompatible with a conscious degree of health and well being. Having reached this point in the consideration of conditions, it is next in order to present the conditions on the side of the agent we wish to use, in order that the organism may be enabled to receive, where it, unaided, is incompetent, that added energy by and through which it becomes competent.

[If in any given instance the reparative capacity be totally consumed then we have death. We are powerless to overcome death. But this point is exceptionably reached in the diseases under consideration.]

Here, also, we have not the time or space to go into the lines of reasoning or philosophy by which we have reached the position we occupy, save only in a very brief series of statements, and those who question their truth must study standard authorities. We are prepared to defend them against all comers.

1. That the medical mind must, first of all, accept the scientific conception of electricity, that it is a form of force or energy, "having no existence *per se* apart from the matter which it affects," a simple mode of motion or molecular vibration similar to light, heat and sound, into all of which it is convertible. That it is interchangeable with all the various forms of energy, *heat*, light, sound, *chemical action.* That unlike heat, light and sound the molecular vibration which gives rise to the manifestation of electric energy assumes a certain and definite *directive force which it has the power of impressing upon surrounding matter.*

2. That on account of its quality of directive force it comes into close analogy and relation to another known directive energy—vital force, and when applied to matter thus endowed, has the power of exhalting, depressing or annihilating the opposed energy. In short it may be converted into vital energy.

3. That its known and established effects, when applied to physiological conditions naturally, and scientifically establishes it as applicable to pathological conditions, possessing, as we do, the advantages of precision, perfect control and modification of its many and varied qualities.

4. That the electro chemical properties of the electric energy render it of especial value in the direct effects it has upon the local conditions. Such are the interpolar effects, katalysis; the movement of liquids or solutions from pole to pole through the tissues, kataphoresis and osmosis. The polar chemical effect, electrolysis, and lastly the direct energising effects upon circulation of lymph and blood through the tissues by excitation of vessels, vaso motor and sympathetic nerves and reflexly sensory nerves.

5. That the power we possess of modification of the electric energy into galvanic, Faradic and static varieties still further enhances its value, and on account of this flexibility attained through precise and known laws and conditions, makes its adaptability in the presence of a known condition, physiological or pathological, universal and unlimited.

In the diseased conditions we are in this paper considering, electricity is, therefore, universally applicable. It can and should be used, be the inflammation acute or chronic, puerperal or non-puerperal, be the local condition a simple endometritis or an aggravated and desperate pyo-salpinx, the only necessary things being a sufficiently educated electrician and physician, the presence of the reparative capacity be it great or small, in a patient, placed in a proper environment.

Having now presented the conditions as related to the agent employed, and the position we have persistently maintained and acted upon in practice, it is fitting to place before the reader as a further testimony the results achieved. Time and space will not permit extensive recording of cases illustrative of the work accomplished, nor is it necessary, save in that class where

the tubes are occluded and distended, especially with pus. The literature of to-day is replete with cases belonging to all the other classes, well authenticated and reported by reputable workers. We, therefore, make a record of the following case of pyosalpinx, treated and relieved by the electrical method.

Mrs. H., æt. 39, American, sanguine temperament, multipara, sent to me for treatment by Dr. B. M. Hypes, Prof. of Obstetrics, Marion-Sims Medical College, St. Louis, in February, 1889. The patient was first seen in consultation with Dr. Hypes and Dr. H. C. Dalton, Superintendent of the St. Louis City Hospital, in the latter part of January, 1889, when the diagnosis of pyosalpinx was made, and at my suggestion the case, selected for treatment by electricity. Her history was as follows: Two years previous, and up to which time she had been perfectly healthy, she was delivered of a fœtus at term, followed by a severe attack of septicæmia; after recovery from this she suffered more or less pain and swelling in the right inguinal region, accompanied with dysmenorrhœa and irregularity of menstruation. In eighteen months she again became pregnant, aborting at the third month, followed by a severe and long-continued attack of general peritonitis, evidently starting from the right side. While carrying this last gestation she suffered severely with the pain in the right side, at times to the extent of producing fainting attacks. The second attack of septicæmia came very nearly costing the patient her life. The local conditions after recovery from second attack consisted of more or less severe pain in right side, tenderness, with metorism, aggravated each menstrual epoch. The local condition at time of first visit was as follows: Extensive inflammatory exudation, involving more especially the right side, intraperitoneal, all the organs being matted together, extending into Douglas' cul-de sac. The left side less extensively affected, but of same character, extreme sensitiveness, immobility and fixation of uterus. In addition there was clearly defined a tumor, about the size of an ordinary hen's egg, easily palpated through the abdominal walls, firmly incorporated with the mass found through the vagina. The ovaries were not made out so as to be recognized at the first examination. Hyperplasia of uterus of considerable extent and bi-lateral laceration of cervix. A profuse leucorrhœa, at times sanious and with odor; menses profuse and irregular; general condition only fair; incapacitated from doing anything; in short, a chronic invalid.

During February she received 10 treatments of the Faradic current; in March she had 8 applications and in April 7. The dry antiseptic cotton tampon was constantly employed and she was medicated with reconstructives. During this period of three months progress and improvement had been prompt and marked; the exudate and accompanying congestion and œdema had become absorbed and cleared up and we could now easily outline both ovaries. Mobility was greatly improved, all discharge had ceased, pain and swelling had disappeared, tenderness of the distended tube was still present. The tube could now be easily defined and was well up the pelvic cavity.

May 3, under chloroform and antiseptic conditions, we aspirated the tube, withdrawing 20 cubic centimeters of pus; washed out the cavity with a saturated solution of boric acid repeatedly, until it came away perfectly clear, by manipulating the aspirator, and gave through the canula an application of the galvanic current, strength 60 M. A., for five minutes, for the purpose of cauterizing a sinus from the vagina to the tube.

The canula was then withdrawn, vagina tamponed with iodoform gauze. Patient suffered considerably from nausea from the chloroform, otherwise everything was in good condition. The local reaction was considerable in a congestive way, the remains of the adventitious tissue and ovary on that side becoming considerably enlarged; pain was almost *nil* and there was no fever, pulse normal; was kept in bed for one week, resumed treatment by electricity in June, when she received 7 galvano-caustic applications to endometrium. In August 5, in September 5, October, November, December, 4, 3 and 2 respectively, when active treatment ceased, making a total of 68 applications.

The result was the total disappearance of all inflammation, hyperplasia, exudate, the tube presenting a hard, firm cord, extending from uterus to ovary. Ovary on this side normal in size, but fixed; tenderness very moderate; restitution of menstrual function, cessation of pain,and metorism. Four weeks following the emptying of the tube she was able to perform her regular household duties, and has, and is to-day, doing her share and portion in life. The laceration of the cervix was repaired about three months ago. She is now in the initio of the climacteric. I insist upon her coming to see me once a month, immediately following the menstrual flow, simply for observation and an application of Farradism. I do this to aid her through the climacteric, for I believe that on account of what she has gone through it is a wise precaution. This result has been attained against the following disadvantages:

A distance of five miles between patient and physician; very moderate means; incomplete and imperfect establishment of the fistulous tract for drainage from tube to vagina, due to a new and imperfect trocar and canula, used for the first and last time; intermission and irregularity of treatment. The average strength of the galvanic current was 40–60M.A.; duration of the application 5 minutes Time under treatment eleven months.

The Method.

Under this head we again must be brief and simply formulate the steps and reasons thereof.

The method was conceived and first put into practice in the latter part of 1885. The first case of pyosalpinx in which aspiration was necessary, was in May, 1886.

1. The method is applicable in all cases where the tube can be reached by the finger in the vagina.

2. A period of preparatory treatment, if admissable, before emptying the tube, if not, immediate emptying and drainage of the tube.

The object of the preparatory treatment is to increase and improve the reparative capacity of the patient. Clearing up and absorption of all the adventitious products within the pelvic cavity that is possible; the subduing of all inflammatory action, the restoration of function more or less complete, and the cessation of all pain and suffering, in order that when the tube is finally emptied and drained there is nothing, or as little as possible, to be done, save the repair and final disposition of this part. When the patient is in such a desperate state and the reparative capacity slight, immediate emptying and drainage of the tube is imperative.

3. The aspiration and thorough cleansing of the tube by and through antiseptic means. The drainage of the tube through the fistulous tract, established by the galvano chemical cauterization, applied by means of the canula of the aspiratory trocar. By this cauterization the tissue between the cavity of the tube and the vagina is sealed, and the possibility of infection, the observed danger in simple aspiration, through and at this site provided against. When the tube is high up and not readily reached, that is, not in near contact with the vaginal wall, the canula can be left *in situ* for a few days. As an antiseptic we have used a saturated solution of boric acid, injected and withdrawn by the manipulation of the aspirator. In doing this the quantity of pus withdrawn must be measured and only so much boric acid solution injected, in this way avoiding over distension of tube and possibly rupture. The maneuver should be repeated until the solution comes back clear and clean. Peroxide of hydrogen, weak solution of bichloride of mercury, or any other suitable antiseptic may be used.

4. Galvano-caustic applications to endometrium and, if necessary, electro-puncture in cervix is always used after the full establishment of the fistulous tract from tube to vagina. The purpose of this is to accomplish the final repair and disposition of the tube itself, and remove any other remains of adventitious products that may be present in any of the pelvic tissues by taking advantage of the tophic influence between endometrium and the adnexia, the indirect influence, as well as the added, direct influence of the electric energy upon the tissues involved.

5. The persistent and regular Faradism of the pelvic tissues from one to three seances immediately following each menstrual epoch until by palpation and the consciousness of the patient every abnormal aberration of function is under control, and the patient objectively and subjectively is in perfect health.

The purpose of this is to prevent any return or accumulation of congestive conditions which are precedent to more grave and lasting deviations from a normal standard.

6. As auxilliary to all the above, the intelligent use of the dry antiseptic cotton tampon, and of remedies *directed* to the regulation of enervation and promotion of a high and stable degree of nutrition. Under the latter measures we have found the Malt Extract of Trommer and Hydrastis Cannadensis of preeminent value.

The bromides of sodii and amonii, and from the vegetable kingdom, many others which are found in several elegant preparations in the market such as that called Dioviburnia, we have found of value when used according to indications.

Such in brief is the method. We respectfully submit that in no sense has it anything in common with the surgical method, but relies and depends wholly upon principles and processes exerted through natural influences and channels.

These we formulate in brief:

1st. That the destruction of removal or the invading organism, the active exciting cause, is accomylished through and by means of the "cell antagonism" residing in the protoplasm of the host, "now termed phagocytes" applied against the protoplasm and products of the parasite.

2nd. The active exciting cause, the microbe destroyed, coupled with the assistance given in removal of the dead tissue, the pus, there remains only the living adventitious tissue, adhesions, etc., which has now become purposeless, save only in the repair of lost tissue and whose destination in the organism is toward obliteration.

3rd. The perfect accomplishment of the absorption of the living adventitious products is entirely dependent upon the reparative capacity of the patient.

4th. We know by observation and repeated illustration that in the absence of the exciting cause, the microbe, that this adventitious living tissue is innocuous, save in a mechanical sense and that natural inherent forces ultimately, even if all is not removed accomplish enough repair so that function is without suffering performed.

5th. The ultimate disposal of the diseased tube is obliteration of its cavity through granulation and adhesion of its walls; in short the destination of the pyogenic membrane.

6th. The only permanent interference with function is mechanical, we see it in accomplishment of sterility and this only where both tubes are involved.

7th. That where the method is intelligently and faithfully employed we find that all cases do not require aspiration, but that the occlusion at the uterine termination is in many cases overcome and the pus discharged through the uterus. This is accomplished by the absorption of the adventitious tissue at this site aided by the mechanical influences here applied by the uterine muscular fibres surrounding the tube, a massage of the tube within the uterine tissue, ultimately accomplishing a patency of its caliber and permitting the outflow of the pus.

This phenomena has occurred in five cases treated by this method, one occurring at the time of an electrical seance.

A careful and impartial consideration of the foregoing will convince the reader that the method here

adopted and advised is not the Apostoli method. It is to a certain extent, but something more and the difference lies in this, that the Apostoli method is based upon electricity as an entity, whose value lies in the direct effects produced upon the tissue to which it is applied, that is the galvano caustic and the theoretical effects, such as electrolytic, these are, when scientifically considered, mere incidents. It is on a par with cauterization with any cauterizing agent, and claims to disorganize *living* tissue by the simple passage of the electric current. This latter claim is, save at the point of metallic contact to our mind, sheer nonsense, a theoretical assumption that has not, and cannot be proven.

Neither is it in accord with the accepted theory of electricity held and demonstrated by scientists of today. It is not denied but that electricity can, even in the interpolar region disorganize tissue, but this means positively death to the organism.

The only rational and intelligent conception of electricity and its value must be the scientific conception, that is, per se, it does not exist and that when it is present it is a force or energy. As applied to the human body it must be still considered an energy or force capable, and we speak here only in a therapeuti cal sense, of impression upon the sentinent material of which we are constructed, namely, protoplasm, in such a way that it is *converted* into, added to the energy preexisting and to which it is applied. The possibility of this is due to the inherent capacity or power of living protoplasm which is known in the broad sense as regeneration. Upon these lines and prlnciples have we builded and worked. With this conception the claim is made that the electric energy can be applied to any known condition, with a known cause, iu pelvic disease, and benefit be derived. That in the conditions we are considering the claim is made that in all of the different varieties electricity can be safely and efficiently used and that as a rule, recovery accomplished.

The advantages of electricity in pelvic inflammatory troubles can be briefly stated, safe, efficient, and under absolute control.

The value and position of electricity in the method advocated and that places the result as due to its use is dependent upon the following:

1st. The fact that in all other conservative methods recovery is not the rule, be the means, used drugs, local treatment or otherwise; while it is true, time in many cases through natures unaided effects may and does result in recovery, these are the exceptions. Simple aspiration has been tried and found wanting save exceptionably.

2nd. The prompt and progressive improvement observed within the shortened time required, usually averaging from 1–9 months, according to the severity of the case.

3rd. The uniformity of results, non-recovery being the exception.

In closing I will state that so far we have treated over one hundred cases of pelvic diseases in which the inflammation has extended to the pelvic peritoneum. In all there has been marked benefit derived and in those who have followed advice, all have recovered. We have relieved four cases by this method of pyosalpinx. Five cases have been relieved by the discharge of pus from the tube through the uterus. The remaining cases treated were not those in which suppuration existed, but inflammatory conditions involving the tissues from endocervix to pelvic peritoneum. We hope, in the future, to place the record more in detail.

3026 Pine Street.

TREATMENT OF PENETRATING WOUNDS OF THE ABDOMEN.

BY EMORY LANPHEAR, M.A., M.D., KANSAS CITY, MO.,

Resident Surgeon Fairview Hospital; Professor of Orthopædic Surgery, University Medical College.

In view of recent progress it seems scarcely possible that anyone should question the propriety of operative interference in penetrating wounds of the abdomen, yet in the *Revue de Chirurgie*, February, 1891, two French surgeons of considerable repute, MM. Reclus and Noguès, enter a vigorous protest against the "American method" and counsel an expectant plan of treatment; and this in the face of statistics which prove conclusively that the mortality-rate has been reduced to a surprising degree by laparotomy, particularly in gunshot wounds perforating the abdominal walls. Thus in the *Medical and Surgical History of the War of the Rebellion* 3249 cases were treated expectantly, with a mortality of 88%. In the figures given by Prof. Lewis A. Stimson, of New York, (*New York Medical Journal*), Oct. 22 and Nov. 2, 1889) a total of 4950 reported cases showed a death-rate of 81%. Let these statements be compared with recent reports; of 165 cases collated by Colley (*American Journal of Medical Sciences*, March, 1891) there were 54 recoveries and 111 deaths—a mortality-rate of 67.2%; of these there were 19 cases of wound of the liver, with 8 recoveries—mortality 58.7%; "50 cases of gunshot wounds, carefully analyzed, showed a mortality of $66^2/_3$% for wounds of the small intestine uncomplicated with other visceral injuries, and 70% when other viscera were wounded." If such be the showing when we are at the very beginning of our work, what must we expect to see when we have perfected our methods!

In what cases should we operate?

In every case of gunshot wound. There is no case in which the surgeon is justified in refusing to operate unless the patient is *in articulo mortis*. From observation in practice and especially from a not inconsiderable number of experiments upon dogs I am thoroughly convinced of the accuracy of this assertion. In penetrating wounds other than gunshot laparotomy should be done when the symptoms demand it.

What are the objects of the abdominal section?

1. To check intra-abdominal hæmorrhage.

2. To close perforations of intestine or wounds of other viscera.

3. To prevent peritonitis.

4. To avert death from septicæmia.

When may operation be made?

It is always best to operate immediately after the reception of the injury because bleeding vessels can then be caught and possibly a death from hæmorrhage be prevented. But any time within twelve hours may be regarded as the "time of selection" and a condition of collapse need not prohibit interference. And again one should not hesitate to open the abdomen even though days may have elapsed and the patient appear to be "doing well." Thus in a case operated upon by Prof. Wm. T. Bull, of New York, "seventeen hours had passed; there was some pain and tenderness, but pulse and temperature were normal and patient was 'doing well'; laparotomy was performed; seven wounds of the small intestine were found and two pints of bloody serum and clots were in the abdominal cavity; the wounds were closed, the abdomen washed out and the patient recovered." Priddy records a case in which an operation was done 108 hours after injury—the patient apparently "in excellent shape and on the road to recovery"—and a hole found, eight inches long in the colon! Patient recovered. So no man can say: "The patient is doing well—*do not operate.*"

Peritonitis may be found to have arisen if the subject be seen some hours after injury. This the more demands laparotomy because non-interference means almost certain death, while operation gives some hopes for recovery. As in a case reported by Frick "the patient was not found until twenty-four hours after injury; was brought to camp-hospital two days later, and signs of peritonitis having developed, operation was performed on the sixth day; a large, lacerated wound of the liver was found and a deep abscess had formed along the track of the bullet; large abdominal incision and drainage; patient made a good recovery."

Shall Senn's hydrogen-gas test be used?

In other than gunshot wounds, perhaps yes. In penetrating gun-shot wounds of the abdomen, *decidedly no* —it matters not whether the intestine be or be not injured—*laparotomy should always be made.* There may be hæmorrhage to check; there may be perforations to close; there is impending peritonitis to prevent; and there certainly will be blood and serum to remove. *Perforation of the intestine is not at all necessary to cause death,* as has been conclusively shown by Prof. Hunter McGuire, of Richmond (*Transactions* American Medical Association, 1881). In fact the greatest source of danger in such wounds is *septicæmia,* as J. Marion Sims long ago pointed out (*British Medical Journal,* February, 1882), as a result of his observation of gunshot wounds of the abdomen in the Franco-Prussian war: "I learned this great truth—that all the cases died of septicæmia. The post-mortem examination showed large quantities of bloody serum in the abdominal cavity. In every instance there was evidence of blood-poisoning, and there was rarely the slightest evidence of peritonitis. There was not a single exception to this rule. It is possible that an escape of flatus or contents of the intestine may give intensity to the poisonous quality of the bloody serum in the abdomen." What he observed upon the battlefield I have repeatedly demonstrated upon the dog and I am sure that death may be prevented by thoroughly cleaning out the abdominal cavity. Therefore I repeat that there is urgent necessity for laparotomy and a thorough washing of the interior of the abdomen even though we *know* there are no perforations of the intestine.

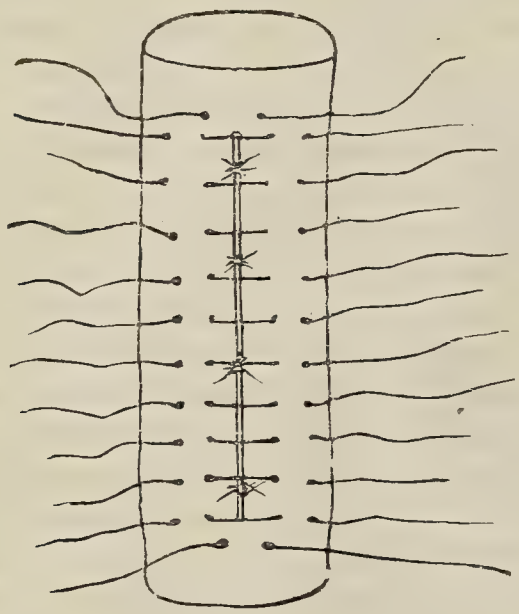
Having determined, then, to operate, how may it be done?

There is a simple way which anyone can follow, no elaborate equipment of instruments or appliances being necessary. The belly is first cleaned as thoroughly as possible and the incision made in the median line, about six inches in length, towels having been placed around, with a number lying near in hot water to surround the bowel while operating. A large sponge is introduced and the blood removed, rapid search being made for bleeding points which are quickly grasped and all hæmorrhage controlled. The finger is then thrust into the wound and a loop of in testine brought up; a small hole is made in the mesentery at a point where there is no large blood-vessels and a strip of iodoform gauze tied loosely around the bowel; this is the "landmark" for determining when the whole intestine has been examined. The gut is now hurriedly slipped through the fingers and back into the belly, every inch being carefully scrutinized for perforations; after the one end has been thus hastily gone over return is made to the gauze "landmark" and the other part likewise examined. The whole length of the intestine can thus be viewed in an almost incredibly short time. If a hole be found the ragged edges are trimmed with scissors, the rent closed with the continuous silk suture (or interrupted if it be of considerable size) and the whole closed in with a Lembert suture. For the latter only the finest sewing silk is to be used ["milliners' silk, white, No. A" is what I ask for] with an ordinary cambric needle—a surgeon's needle is carried only through the serous coat, being entered a little distance away from the line of junction, brought out close to it, carried across and again buried as shown in the cut.

Upon being pulled together and tied serosa is brought in contact with serosa and the sutures through the mucous and muscular coats are completely covered and extravasation of fæces is prevented. Recently I have been in the habit, when special haste is indicated, of making a modified Lembert stitch; the needle is introduced in the same manner but the serous surfaces brought together at once and the thread tied; then, while the serosa is pinched up together by the fingers the needle is re-entered and passed back across, turned, re-introduced and again brought across, and so on, making a "back and forth" continuous suture, instead of the "over and over" continuous stitch usually made

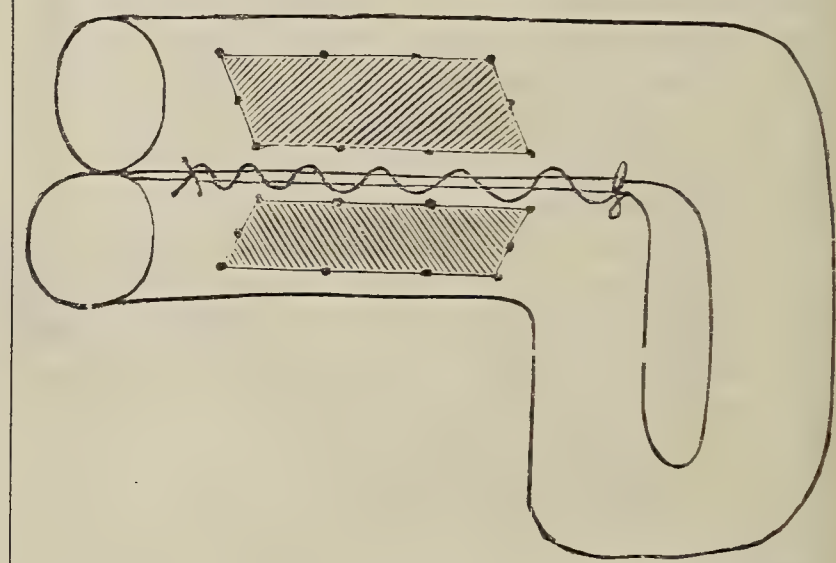
elsewhere. This "continuous Lembert suture" holds the serous coats in apposition just as well as does the interrupted, if it be carefully made and tied here and there if it be very long. These sutures should be eight or ten to the inch.

This closure is to be made wherever a tear is found provided the hole is not so large as to close and obliterate the lumen of the tube when brought together, or even produce a considerable stricture or stenosis; in such a case an enterorrhaphy or anastomosis must be made—the latter usually. If Senn's plates be at hand they may be used if desired, but ordinarily recourse should be had to the following method: When there has been a considerable destruction of the intestinal wall, yet not sufficient to call for resection of the gut, the contents of the bowel are stripped away and kept back from the field of operation by means of either Makin's or Brokaw's clamps, rubber bands or (as I prefer) by simply puncturing the mesentery and encircling the intestine with a strip of iodoform gauze loosely tied in



one knot; the edges of the wound are then trimmed and sewed together; when this has been done a loop of intestine is made so as to bring the uninjured surfaces of bowel together, the loop being sufficiently large that the rent may be covered with a fold of mesentery or omentum if obtainable—if not, it must be buried by means of the Lembert suture; the loop having been brought out the serous coat of one part is sewed to the serous coat of the other as near to junction of mesentery and bowel as possible; this is done by means of a continuous suture as represented in the next cut; as soon as this is done the bowel is cut through in such manner as to make a "trap-door opening" as suggested by Parkes of Chicago; a corresponding opening is made in the opposite section, the inner border of each opening being as close to the continuous suture as possible; these fenestra must be not less than three-fourths of an inch wide and an inch long; as soon as the everted mucous membrane can be cut away the margins are sutured, the four inside stitches being first tied, then the two end ones and last of all the remaining four on the outer margin (all of these points for the introduction of sutures are shown in the cut, each marked point being joined to its fellow on the opposite side); the whole is then buried with Lembert sutures, commencing at a point where the initial continuous suture through the serosa terminates and ending where it begins, the strips of gauze are removed and the anastomosis is finished. If there be a number of openings to close, if the patient be in extreme collapse or if there be other urgent necessity for extreme haste the margins of the opening may be united by a continuous suture drawn fairly tight and a piece of mesentery or omentum thrown around the whole and hastily sutured into position with a continuous suture of the fine unbraided silk already mentioned.

Of course if the destruction of intestine be extensive the injured portion must be removed. The amount which can be successfully excised is not known. Kœberle has reported a case in which more than two yards had to be taken away and I have cut out even more than this from the dog The place where the cut



is to be made is protected by iodoform strips in the manner already described, the gut cut and the ends inverted, sewed and covered by peritoneal tissue. Then the anastomosis is made in precisely the same manner except that the bowels are laid side to side instead of forming a loop. If the portion of intestine to be removed be of much length a triangular segment of mesentery must also be excised to prevent subsequent kinking. The base of this triangle must be slightly smaller than the interval between the ends of the intestine so as not to interfere with the nutrition of the parts. The edges are adjusted to each other and united by a fine catgut suture. The line of incision through the mesentery must be carried close to the attached margin in order to preserve the anastomatic loops from which spring the nutrient vessels of the walls; any portion of gut separated from this is sure to slough. The only point of difficulty lies in securing the part next to the anastomosis but if a sufficient amount have been left next to the end of the bowel there will be no difficulty in stitching it to its opposing part on the other end of the cut intestine; this forms a little mass just beneath the anastomosis but this does no harm.

When proper attention has been paid to all the lesions the belly is thoroughly washed out with a hot salt solution, six parts to the thonsand, of a temperature of about 110°F. This not only cleanses the abdomen, but prevents shock by its influence on the nervous system; in fact by thus flushing, cases can be successfully handled that would otherwise be inoperable from weak heart. The utmost care must be taken to secure *perfect* cleanness of the peritoneum, because, as I have already remarked, the chief danger lies in septicæmia. Mansell Moulin advises the use of a boric acid solution for flushing the abdomen, but I prefer the normal salt solution.

Whether a drainage-tube is advisable or not depends upon the amount of peritonitis present. If, upon making the laparotomy, there is nothing inside except blood and serum, after the bleeding points are secured and tied with fine catgut, the abdomen is sponged out carefully, and if septic matter has not been introduced the incision is closed without irrigation. If there have been fæcal extravasation, or if other septic matter have been carried into the belly, perfect washing has to be made, and the surplus water sponged out just before closing. If a considerable quantity remain it does no harm, and the same is true of a moderate amount of blood, *provided it is clean.* As to catgut for ligating blood-vessels in the abdomen and pelvis, I always use it in spite of the fact that I have lost two patients, one human and one canine, from secondary hæmorrhage; if juniper-oil gut, thoroughly softened in water, be employed, and sufficient care taken in tying, this ligature is perfectly safe, and by far preferable to silk.

The method of closing the incision in the abdominal wall does not differ from that of any other laparotomy. The point of entrance of bullet or knife need not be sewed unless it be open; if it be sutured at all, it should be on the peritoneal surface, the external wound being simply cleaned, dusted with iodoform or subiodide of bismuth, and covered with bichloride gauze.

The method of intestinal anastomosis I have just de scribed is especially applicable when operation is made for disease of the bowel—as cancer, intussusception, hernia, etc., or in gastro-jejunostomy for carcinoma or stricture of the pylorus.]

After a careful study of the subject, both in practice and in the experimental laboratory, I deduce the following

Conclusions.

1. All cases of penetrating gunshot wounds of the abdomen demand laparotomy; most others also require it.

2. The operation should be done immediately after the injury if possible, so as to control bleeding before the patient is exhausted.

3. Any time within twelve hours may be regarded as the "time of selection," but the lapse of many hours or even days need not prevent operation, since death from septicæmia is likely to occur.

4. A condition of collapse is not an insurmountable contra-indication.

5. The existence of peritonitis demands, rather than forbids, an operation.

6. In gunshot wounds Senn's hydrogen gas test should not be employed, as the indications are *always to operate*; perforation of intestine is not necessary to render the wound fatal. In other penetrating wounds the test may be employed.

7. Laparotomy is, in such cases, comparatively an insignificant operation. Any surgeon of ordinary skill ought to be able to successfully operate.

8. In case of emergency the operation here described can be made without an elaborate set of instruments. A success can be obtained by the use of only (*a*) a knife, (*b*) scissors, (*c*) needle and thread, (*d*) hæmostatics and (*e*) *good judgment.*

TRANSLATION.

ABSTRACTS FROM THE FRENCH AND GERMAN.

FOR THE WEEKLY MEDICAL REVIEW.

BY FRITZ NEUHOFF, M.D., ST. LOUIS.

Diet in Diseases of the Kidneys.

Sassjadke finds, that while vegetable diet diminishes the amount of albuminuria, it is not well borne for any length of time. Under its exclusive employment, nephritic patients soon become apathetic, and the blood pressure is diminished.

Animal diet is found to increase the amount of albuminuria, but on the other hand, it improves the general condition of the patient, and raises the blood pressure. A mixed diet has about the same effect as an exclusively animal diet.

Since we regard nephritis not as an affection of the kidneys only, but rather one involving the whole circulatory system, we must in the treatment not only prescribe substances which restrict the excretion of albumen, but we must also attempt, by suitable diet, to improve the general nutrition of the patient, and thus relieve the phenomena of ischæmia.

The mixed animal and vegetable is found to be most suitable for nephritic patients. Chestnuts have been found to lessen the amount of albumen in the urine.—*Wratsch. Centbl. f. Therap.*

Abortive Treatment of Buboes.

To abort buboes following chancroids, E. Welander (*Arch. of Dermat. and Syph.*) injects into them at one or two points (according to their size) 7½ minims of a liquid composed of a 1% solution of benzoate of mercury and a ½% solution of chloride of soda. Antiseptic

precautions are observed, and after the injection the bubo is enveloped in bichloride gauze, which is changed twice a day. If the skin subsequently gets red, it is painted with a 1 in 2 or 3 ichthyol solution. The patient must be kept as quiet as possible.

The infiltration as a rule diminishes in a few days. Considerable fluctuation may develop, but it also soon disappears.

The results of this treatment are very favorable. Out of 33 cases tending to suppuration, this event was prevented in 30.—*Centrbl. f. ges. Therap.*

Exalgin in Chorea.

Having observed good results from the administration of antipyrin in chorea, Dr. Moncorvo tried exalgin in the same disease.

He gave 0.2 g. (3 grains) of exalgin a day to a child, æt. 8, who suffered from chorea of 9 days' standing. After 5 days' treatment decided improvement was manifested, but the child received a scare which produced aggravation of all the symptoms.

The author now ordered 0.3 g. of exalgin a day, and in about 15 days the patient was completely cured.—*Central. f. g. Therap.*

Discussion of Tuberculin in the Medical Congress of Wiesbaden, April 6 to 9.

Dr. Sonnenburg, of Berlin, presented a patient who has appeared completely cured for several weeks. Four months ago the patient was affected with tuberculosis of two years' standing. He was emaciated, and had suffered several hæmorrhages. His left lung was somewhat infiltrated and in his right lung there was a cavity about the size of a hazelnut. Dr. Sonnenburg opened up the cavity and subjected the patient to a course of tuberculin treatment. The result was, as above stated, a complete cure.

Five other cases with cavities have been subsequently operated upon by Sonnenburg, Of this number two died, and the result in the other cases is, as yet undecided.

Dr. Ziemsen, of Munich, thinks it is as yet too early to pass final judgment on the tuberculin treatment, but he still has faith in it. He admits that it may become necessary to alter the manner of administering the remedy itself. He has treated in all 100 cases. In this number there have been many apparent cures. Relapses are sometimes occasioned by the patients returning to their work too soon after undergoing treatment. Small doses give better results than large ones. We should begin with 0.001 and increase slowly. As a rule, 0.05 should not be exceeded.

Furbringer, of Berlin, regards tuberculin as a remedy which not seldom fails, but which is also capable of accomplishing a great deal. He has found it to achieve an absolute cure in about 5% of the cases treated, and decided improvement in about 40%. He has seen no case of miliary tuberculosis attributable to tuberculin.

Mr. Naunyn, of Strassburg, was formerly enthusiastic in the use of tuberculin, but he has seen so many bad results, that he does not think himself justified in continuing to use the remedy.

Dr. Kast regards it as somewhat dangerous to employ a remedy of which we know so little as to its composition and manner of manufacture, as we do of tuberculin. What guarantee have we that consecutive bottles of it are of the same strength.

Dr. Cornet has observed 420 cases treated by tuberculin. Of late he has administered the medicine by inhalation by means of a specially devised apparatus. He has seen cases in which all symptoms vanished after treatment, but he does not regard these as absolute cures. The bacilli have been known to live six months outside of the body; why should they not do so also in the body? Still, tuberculin, no doubt, gives better results in phthisis than any hitherto employed remedy, and, therefore, we are justified in continuing its use.

Dr. Schultze, of Bonn, has not had satisfactory results with tuberculin, and has discontinued its use.

Peifer, of Greifswald, has made special investigations as to the diagnostic value of tuberculin. He found that it produced a reaction in 26 out of 30 non tubercular subjects to whom it was administered. Its diagnostic value is, therefore, nil.

Dr. Turban has had sufficiently good results with the Koch remedy so warrant his continuing its use. He would recommend supplementing the treatment by hygienic measures, such as the breathing of the pure atmosphere of the mountain districts.

Lenhartz, of Leipzig, has had such encouraging results with the tuberculin treatment that he is able to give it his unqualified endorsement.

Dr. Haunyn closed the discussion with the following remarks: The therapeutic power of tuberculin seems to be more valuable in laryngeal than in pulmonary tuberculosis. The bad results from the treatment can not all be attributed to faulty methods of application. The good results from the treatment are attributed by some to the tuberculin, by others to the careful selection of the case.—*Deut. Med. Zeit.*

Ichthyol in the Treatment of Dyspepsia, and the Nervous Troubles Dependent Thereon.

Stocquart reports seven clinical experiences which enable him to state that ichthyol taken internally is very efficacious in the treatment of vertigo and cephalic complications concomitant with simple dyspepsia and gastro-intestinal dyspepsia. Ichthyol has the advantage over bromide of potassium of being well tolerated by the stomach, increasing the appetite, and facilitating digestion.—*Archiv. de Med. et Chir.—Rev. Inter.*

Typhlitis, Perityphlitis and Appendicitis.

A review of these diseases by A. Richard, in *Gaz. de*

Hopit., surmarizes their therapeutics as follows: In the first stage, when there exists only pain, without local puffiness or febrile phenomena, the therapeusis is purely medical.

At the stage of very limited puffiness in the iliac fossa, we must wait and determine as to whether surgigical interference becomes necessary or not, by observance of the local and general conditions.

At the stage of suppuration, we must perform lateral laparotomy, evacuation of the abscess and resection of the appendix, provided the resection can be done without much difficulty.

At the stage of peritonitis, we must perform median laparotomy (with or without a lateral counter-opening), excision of appendix, and flushing of the peritoneum.—*Revue Internat. de Bib. Med.*

STATISTICS OF ANÆSTHETICS.

We believe that St. Bartholomew's Hospital is the only one in the metropolis in which a record is kept and statistics published of the number of times anæsthetics are administered during the year. These statistics are both interesting and instructive, and become valuable as showing the direction of the current in favor of or against a particular anæsthetic agent. Turning, for example, to the records for 1879, we find that out of 2,094 anæsthetizations chloroform was given 975 times, nitrous oxide gas alone 112 times, ether alone 23 times, and ether preceded by nitrous oxide 984 times. In 1889, however, the records are as follows: In 3,606 administrations—chloroform, 1,601 times, gas 686, ether 810, gas and ether 509 times. Thus, on comparing these figures the remarkable fact becomes apparent that chloroform has again come to the front as the most popular anæthetic at St. Bartholomew's Hospital. Not only does the mixture of ether and gas not maintain its position of superiority as was the case in the year 1879, but in 1889 not even the total administrations of ether alone, and gas and ether combined, reach by a long way the number of administrations of chloroform. It is just possible that in part this change of opinion may be due to the results published by the Hyderabad Commission, of which a member of the staff of the hospital was the shining light. But investigation shows that ether has been declining in favor for some years at St. Bartholomew's. In 1888 it was administered 1,003 times out of 3,788; while, during the same year, gas and ether combined was only given 349 times. What a contrast this with eleven years ago, as the records above quoted demonstrate! As we see now, choloroform takes the lead, then a long way behind comes ether alone, while gas and ether combined make a shocking bad third.—*Med. Press.*

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WEEKLY MEDICAL REVIEW.

G. W. BROOME, M.D., EDITOR, - - - 520 Olive St.
WILLIAM DICKINSON, ASSOCIATE EDITOR, 1322 Olive St.

TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this REVIEW, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings, carefully prepared in ink, accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

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SATURDAY, JUNE 6, 1891.

SURGICAL SECTION OF THE AMERICAN MEDICAL ASSOCIATION.—MEETING AT WASHINGTON.

The meeting of the surgical section of the American Medical Association this year was the most successful that has ever been held in the history of the Association. Very able papers were submitted by the members, and the discussion was of very elaborate and of an instructive character. The attendance was the largest of any of the sections, and the high character of the papers that were read and discussed was due largely to the enthusiastic earnestness and untiring energy of its President and Secretary, Dr. McGraw, of Detroit, Mich., and Dr. W. E. B. Davis, of Birmingham, Ala. The officers for the ensuing year, are: Dr. F. McGaster, Atlanta, Ga., Chairman, and Dr. Mann, of Detroit, Mich., Secretary. The retiring Secretary, Dr. W. E. B. Davis, of Birmingham, Ala., was elected one of the Vice-Presidents of the Association.

American Academy of Medicine.

This Academy, at its late meeting, declared its adhesion to the doctrine of higher education, on the part of those aspiring to practice the medical profession, and urgently recommend "that all medical colleges should require a preliminary examination of students in the branches which constitute a high school curriculum, including one years' study of the Latin language; also that the course of study in all medical colleges should be graded, and extend through not less than three years of eight months each; also that there should be in each State a board of medical examiners."

Officers elect, President, Dr. Phineas S. Conner, Cincinnati; Vice-Presidents, Drs. R. Lowry Sibbett, Carlisle, Pa., George J. Fisher, Sing Sing, N. Y., Henry M. Lyman, Chicago, and Louis S. McMurtry, Louisville, Ky.; Secretary, Dr. Charles McEntire, Easton, Pa.; Ass't Secretary, Dr. Edgar M. Green, Easton, Pa; Treasurer, Dr. J. Chester, Morris, Pa.

Higher Medical Education.

Higher medical education is the true interest of the public and of the medical profession. Nothing concerns more directly every individual member of the community than that our medical men shall receive a thorough and practical education. In all civilized countries except America, from five to seven years are devoted to this purpose, although their students enter the medical schools with better preliminary education than the vast majority of ours enjoy. In each European country there are only a few schools privileged to confer medical degrees, so that it is easy to maintain a high standard. But in this country there are hundreds of medical schools intrusted with this great power and high responsibility. Keen competition keeps down the standard. Until a few years ago it was the rule that only two years' study was required. Conscience revolted at this shocking laxity, and a few schools advanced their standard and established a three-year obligatory graded course of medical study. It was done in the face of much opposition, but it was done successfully, and to day no medical school has any standing which has not adopted the three-year course. It was known to all who had studied the subject that this advance was but the first step. The number of subjects to be taught has increased; the methods of medical instruction have grown more exacting and thorough; above all it is felt that no student should receive a degree which empowers him to enter on the most responsible work of practicing medicine unless he had had ample bedside instruction in every branch of his profession. It is simply impossible to do this in a three-years' course. Students are overworked in the attempt. The more complete the facilities possessed by any school the more evident has it become that one more advance must be made to enable the student to profit by his opportunities and to become a well-trained physician. The old cry is still raised that there were eminent doctors in former days who had studied only two years, and that those who graduate now with three years' training succeed well in their profession. But every one who advances this argument knows how specious and hollow it is. It is universally admitted by the public and the medical profession alike that it is impossible to-day to give a thorough medical education in less than four full years of actual work in lecture-room, laboratory, and hospital.

The Medical Department of the University of Pennsylvania is the oldest and most distinguished medical school on this continent. The stand taken by this school more than fifteen years ago in lengthening the term and raising the standard of medical study produced the most conclusive effect, because it was attended with such brilliant practical results. Ever since that time its graduates have distinguished themselves by unequaled success in all professional competitions. The advance was effected only by great sacrifices, and exertions on the part of the Faculty. All high-grade, scientific education is costly and demands great facilities and increased labor. So it will be again. The school which puts into operation a full four-year graded course of medical study must be ready to meet increased outlay and lessened income from students' fees for some years at least. But what is resigned in mere pecuniary profit will be many times over compensated by the lasting influence for good exerted.

On May 21 the following letter was submitted to the Medical Faculty and trustees of the University:

1811 Spruce Street.

To the Board of Trustees and the Medical Faculty of the University of Pennsylvania:

The approaching completion of the Laboratory of Hygiene calls attention to the pledges given to Henry C. Lea, Esq., by the Trustees and Faculties of the University. These pledges included a sum of $200,000 for equipment and endowment; the appointment of Dr. Jno. S. Billings as Director of the Laboratory and Professor of Hygiene; the introduction of Hygiene as an obligatory study in certain courses; and finally, after compliance with the above conditions, the inauguration of an effort to secure a fund of $250,000 for the endowment of the Medical Department of the University for the purpose of establishing an obligatory four-year medical course. It now becomes our duty to undertake the last of these obligations.

It cannot, I fear, be reasonably expected that this latter large sum of money can be actually obtained in interest-bearing securities in less than three or four years. Meanwhile the arguments in favor of the early establishment of the four-year course appear to be gaining force. All will admit the impropriety of yielding to these arguments, however, in the case of the University, unless ample provision is made to secure the permanent and successful continuance of the movement. If, therefore, the four-year course is to be

started in the near future, it would seem desirable that, while the effort to raise the $250,000 for permanent endowment is being resolutely prosecuted, it should be accompanied with the raising of a guarantee fund to cover any actual deficit resulting from the operation of the new course. Careful consideration indicates that no less an amount than $20,000 per annum for five years would suffice for this purpose.

Being impressed with the urgent importance of higher medical education, and believing that it is the duty and the privilege of the Medical Department of the University of Pennsylvania to be the leader in this, the final reform of medical education in America, I beg to submit the following proposition: That on condition the University shall decide and announce before June 1, 1891, that a four-year obligatory graded course of medical study shall be established on or before September 1, 1892, I will subscribe toward a permanent endowment fund of $250,000, for the Medical Department the sum of $50,000 subject to the conditions below recited; and towards a guarantee fund of $20,000 per annum for five years the sum of $1,000 annually during that period.

The conditions attached to this offer are: That the endowment and guarantee funds shall be fully subscribed before January 1, 1893; that the endowment fund may be subscribed to be paid in annual installments extending over not more than five years; that a certain number of additional free scholarships be established in the Medical Department, and that the particular feature in the endowment of the Medical Department to which this subscription of $50,000 shall be devoted is to be announced later. Yours faithfully,

WILLIAM PEPPER.

The Medical Faculty of this venerable school have again shown the devotion and courage which made them pioneers in the former advances. They have promptly pledged themselves to establish a four-year obligatory graded medical course in 1893. The Laboratory of Hygiene will be opened in February, 1892. This admirable institution will afford facilities not to be found elsewhere in America. The establishment of the four-year course will enable all students to pursue thorough courses in hygiene, bacteriology, &c., under the distinguished teachers, Dr. John S. Billings and Dr. A. C. Abbott, who leaves Johns Hopkins University to take the position of Assistant Director.

The Laboratories of Chemistry, Pathology, and Histology are unequaled in size and completeness of equipment. The clinical facilities offered in all branches will vie with those of the great European schools. During the coming summer a great central heating and lightning station will be constructed, and electric lighting, steam-heating, and admirable ventilation will be provided for the medical buildings.

It is intended to raise a guarantee fund of $20,000 annually for five years; already about one-half of this has been subscribed by the members of the Medical Faculty. A permanent endowment fund of $250,000 must also be secured. It cannot be doubted that the offer of Provost Pepper will be effective in this direction. The Board of Trustees has judiciously postponed its assent to the proposed advance until the success of both funds is assured. Every friend of sound education and of humanity should aid in carrying this through, for it will remove a source of reproach, and will set an example which will result in the general elevation of the medical profession, and therefore in promoting the true interests of the public.

MISSOURI STATE BOARD OF HEALTH.—MEETING AT JEFFERSON CITY.

The State Board of Health met at Jofferson City on May 28, and from the account given in the daily papers the meeting was not a harmonious one, owing to differences of opinion developed in the discussion of a proposition to take definite action in regard to the three-term requirement. Five members were present, Drs. Goben, Merrel, Hall, Homan and Atkinson; the other two members, Dr. Griffieth and Mr. Harman, not appearing at all.

The matter being before the Board for action, it appears that Dr. Goben moved postponement until the next meeting, which was seconded by Dr. Atkinson.

The ensuing discussion showed a majority sentiment unfavorable to further delay, but before the question was put Dr. Goben withdrew from the meeting, shortly followed by Dr. Atkinson, who stated that he was in doubt as to his right to sit as a member as he had not qualified.

The untimely withdrawal of two members had the the effect to deprive the Board of a quorum, necessary for the transaction of business, and the question under discussion was left pending, with other important matters undisposed of which demanded attention.

DODGING THE ISSUE.

It appears that with the utmost composure and equamimity Dr. Atkinson participated in the proceedings of the Board until the subject, relating to three courses of lectures came up for consideration. Dr. Atkinson, having seconded a motion to postpone, was then suddenly seized with an attack of tender conscience, doubted his right to sit and act without being duly qualified, and in his strange bewilderment, he deemed his escape from the situation easiest effected by following the example of another member who had retired from the session, in order evidently to avoid the assumption of the responsibilities which are entrusted and imposed upon the members. "Consistency thou art a jewel."

PHYSICIANS and other readers of the REVIEW should not fail to examine its advertising pages, where much that may prove of interest will be found.

NEWS OF THE WEEK

Dr. W. J. Galbraith, of Omaha, Neb., who has been division surgeon of the Union Pacific for six years, has been appointed general surgeon of that system, in place of Dr. Oscar Pfeiffer, who has resigned. The headquarters will be removed from Denver, Col., to Omaha. Dr. Pfeiffer has been chief surgeon for seven years, having been appointed to that position under the Adams administration.—*The Railway Age.*

Missouri State Board of Health.—According to the newspaper account of the meeting of the State Board of Health at Jefferson City, last week, one of the members, it appears, carried out the programme of the medical school which is conspicuous in its advocacy of the knowledge requirement over the time requirement to the entire satisfaction of all those he represented.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, May 23, 1891. Dr. William Dickinson in the chair.

Dr. Johnston presented a patient and said.—This little girl is four and a half years old, unusally bright and intelligent. Her mother was about sixteen and her father seventeen years old when this child was born. No peculiar history attaches to the case, except that the mother associates the hirsute phenomena with her accustomed service of milking the cow. It is a case of abnormal development of hair, which covers the neck and shoulders and extending down on each side, especially the left, corresponding in color with the hair on her head. There is a circular patch on the forehead of the size of a quarter of a dollar, and smaller patches one the extremities. The parents are living; the mother is living out at service. During the last two months suspicious symptoms of hip joint disease have developed.

Large Fibro-Cystic Tumor Springing from Uterus.

Dr. Edward Borck presented a tumor and said.—This tumor was removed from one of my lady patients at 12 o'clock last Tuesday. The history of the case is as follows: Mrs. C. N., from Kansas, was sent to me by her family physician in 1885, then weighing 96 pounds, her usual weight; five feet seven or eight inches high; blue eyes; brown hair mingled with gray; she is æt. 41, and has one child æt. about 14. At that time (1885), her menstruation was regular, and she was otherwise healthy; but two years since she noticed a small tumor in her abdomen which had gradually increased in size; she wanted to know what could be done. Upon examination the diagnosis made was a fibroid of the uterus; the ovaries not being involved. The lady was advised not to insist upon an operation at that time, but to go home, as she had but little pain and was quite comfortable, and wait until her climacteric period had passed. This advice was given for the reason that these tumors often cease growing after menstruation has ceased; sometimes they even atrophy and cause the patient little or no trouble; no unnecessary risk was therefore incurred by delay. However, this tumor continued to grow until it reached a very large size, when arrangements were made that she should return to me seeking permanent relief. She accordingly returned a week ago yesterday. She then weighd 121 pounds. A careful examination confirmed my former diagnosis, being that of a fibroid tumor of the uterus, probably fibro-cystic, without adhesions; the left ovary not involved; the right might be affected with cystic degeneration; of this latter the diagnosis was not positive. Under these conditions and as the patient was determined to have an operation done, and every thing being favorable, the operation was advised, and performed as stated. All are familiar with the details of the operation, during which nothing unusual occurred; she rallied well from the chloroformisation. The operation, dressing and toilet required considerable time. The temperature at no time has been over 100°; nor the pulse over 80 except once; her breathing at one time was 24; to-night her temperature was normal; her pulse 70, and her breathing 18. Three or four of the sutures in the abdomen were removed to-day, not a drop of pus appearing; the wound has closed by first intention. No examination has been made of the tumor. The patient after her arrival here had a warm bath, was rubbed with alcohol, and after taking a light supper was put to bed. The next morning she took a half a cup of gruel, and again put to bed, with warm bottles around her, being kept warm and moist; she was then chloroformed and brought into the operating room. After the operation, no carbolic acid, bichloride of mercury was used, nor anything but warm distilled water with which the abdomen was thoroughly and leisurely flushed. In this case the pedicle was very broad. The patient lost scarcely two ounces of blood during the entire operation. The tumor weighs 21 pounds and seven ounces.

Perineoplasty.

Dr. Mayfield read a paper on perineoplasty with reports of cases.

Dr. McIntyre said he regarded the paper as containing nothing new as to methods except in the subsequent regimen of keeping the patient's limbs apart; he would like to know if the doctor operates with the scissors or knife; what kind of sutures he uses; whether he takes off sheets or strips; and whether the principal advantage of his methods arises from the separation of the limbs.

Dr. Mayfield replied, he ordinarily refreshed all the cicatricial parts; in a complete laceration he used sharp scissors, begining on the right side, separating all the cicatricial tissue, carrying the operation of denudation around to the posterior aspect of the wound; then beginning on the other side, carry another incision, so to

speak, dissecting downward for a flap on that side; then dissect down on the other forming a flap there also; then turn these two flaps down into the rectum and stitch from this side over and into the other flap, approximating these two flaps, and thus forming a rectum; then take four sutures in the deep aspect and above the laceration; having my fingers in the newly formed rectum, the sutures of which have now been tied and carried out an inch or more for an assistant to hold, and carry the needle down and take some stitches as used by Tait. The speaker had always used the braided silk (since they hold better and never cut out), pretty coarse, number 8 or 6, with large curved needles, bringing them firmly enough together to be sure all the raw surfaces are approximated, so that no fluid can become interposed between the freshened surfaces.

Dr. French said.—He would like to inquire if the doctor used the same sutures, that he speaks of, in closing other tissues; whether silver wire or braided silk; and whether he attempts to restore the function of the muscle by uniting the ruptured edges of the muscle together?

Dr. Mayfield replied he used braided silk in most of his cases and preferred it; very fine sutures, and carried the ends out so as to lose nothing; these can be examined and dressed with the same precautions as the other. He formerly used silver wire, but not with satisfaction.

Dr. French added.—In operations of this kind, all the failures he had ever seen resulted from want of union of the sphincter muscle. He apprehended every surgeon in the house would readily admit that there is no good and sufficient reason to be doubtful of success when union of the muscle is secured; but we cannot secure that end by dividing the cicatrix. The speaker employed the same method in dividing the cicatrix, spoken of by Dr. Mayfield, and also was in the habit of cutting very deeply on each side of the rectum, so as to reach the end of the sphincter muscle, and putting deep sutures through the torn end and bring the parts together; then we restore the sphincter and its function, which is the great point to be obtained in this operation and the desirable object to be secured. He therefore made the inquiry whether the scissors were inserted at the anterior angle of the cicatrix, and simply passed between the bowel and vaginal structures and divided up to the upper portion of the cicatrix, or whether or not the deep incision was made on either side.

Dr. Dalton observed, he had the pleasure of seeing the doctor operate today, and approved his method. He brings the parts together in a most excellent manner, and abducts the thighs; he applies the dressings very nicely. His method of operating is not much different from that of other surgeons, except in keeping the thighs apart and maintaining an aseptic condition of the parts.

Dr. Hurt stated he had had the pleasure of witnessing the operation by Dr. Mayfield several times, and had assisted him in them, and while the operation is not radically different from the usual method of repairing and stitching up the lacerated parts, there is yet some difference. He had never seen the doctor insert his needle so far out in the adjacent skin as is recommended usually by surgeons, it being usually inserted very near the margin of the wound, after the parts have been freshened, and the result is that when the parts are brought together and fastened closely, the stitches sometimes lie within the fold of the skin, and do not carry the skin into the stitches at all; and while there was a propriety in keeping the limbs in contact in cases of this kind, and constituting them, as it were, as a sort of splint to keep the parts together and take the tension off the stitches as much as possible, he has proceeded differently; at the doctor's request, during a visit when he was absent, the speaker insisted on introducing the catheter to relieve the bladder, and soon the patient complained of its introduction. The doctor returning stated the catheter was unnecessary. In another case operated on a few days afterward, the catheter was not used at all, and the patient progressed quite as well Some years ago the speaker read a paper before the Seciety on the subject of the causes of laceration of the perineum. In that paper he took the ground that severe abduction and flexion of the thighs upon the abdomen were against the safety of the perineum at the moment of the passage of the fœtal head; that, however, might not militate against the philosophy of Dr. Mayfield's theory and practice, although his own theory might be true; because here is a great difference in the circumstances under which the perineum is put to trial. At the moment of the passage of the fœtal head, there is scarcely a muscle, a nerve, or fascia, or any portion of cellular tissue, that is not subordinate to the process of parturition; everything is in the highest degree engaged, and at that very moment when the head is pressing forward upon the perineum. The paper being published, he received a note from a gentlemen, at the time an undergraduate in one of the schools in London, asking for a copy of it, stating that he desired to test the theory; and in sending him the paper he was asked to report the result of his tests. Some months afterward he wrote stating that he had tested the theory in quite a number of cases, was then using the forceps quite frequently, and by practicing this method he had succeeded in delivering without injury to the perineum; and was so well satisfied with it that he was preparing his graduating thesis on that subject. He had not been heard from since.

Dr. McIntyre said he wished to take issue with the doctor in regard to the position of the limbs, he maintaining that it was more advantageous than simply keeping them in an easy position whether tied together or not. In his experience he generally applied a bandage or napkin between the knees to prevent excoriation for the first twenty-four hours; after that no more attention is paid to them; he would be very loath to spread a woman's legs apart after doing an operation of that kind. The paper shows, however, that it is possi-

ble to obtain good results, even if the limbs are widely separated. He thought that posture was of little consequence but that success depends largely upon the thoroughness of the denudation, and somewhat upon the method of the operating, and the nature of the sutures. The best suture known to him is the silk-worm gut. This idea was obtained from Bantock, and seeing the magnificent results of his operation, and being conversant with the operation himself. In the early days of his professional career, the speaker said he was in charge of a Home of the Friendless, in which operations were almost always upon women under 30 years of age, and in them he adopted that suture. He could recall but one failure since that method was adopted, and that was in a woman who was exceedingly thin in flesh; very little muscular or adipose tissue being present. When the denudation is accomplished by scissors for a sufficient extent of leverage to facilitate the operation, he introduced the silk worm gut with any kind of a needle, and the more experienced one becomes the straighter the needle he uses, which rule, he believed, holds good in almost all operations. A very important point is the method of applying the sutures; they should be placed in easy distance from the integral surface of the skin, not a quarter or half an inch as is sometimes recommended, but the sutures should be passed in such manner that the points of the needle, in its transit from one side to the other, are continually beneath the exposed surface.

Dr. Mayfield.—It has been asserted that the whole paper seemed to hinge upon one little matter, viz , abduction of the thighs. The speaker was willing to rest the value of the paper just on that. As a matter of fact it contains very much more. He claimed that separation of the thighs is the better treatment; just as it would be better, if there was an injury between my fingers, to separate them, and keep the part aseptic. Yesterday we had a case of a woman in which there was a great deal of sloughing on the parts, and an old standing rupture; we flexed her legs as far back as they would go in the lithotomy position, and still there was no tension exerted on the part; the stitches were all brought together, the wound dressed aseptically in that position, and the legs abducted, and that is the important point and it is worth knowing.

Br. Bond said.—Discoveries are not numerous; few new facts are presented, and when a new one is presented, be it ever so small, if it constitutes a real step in advance, we should appreciate it. If it is true, and it may be proved to be true, that Dr. Mayfield has furnished us a condition of things that will result in the more ready union of ruptured perinea, it will be a decided advance in gynæcology, and when he reports to us cases and describes operations and his method, we can readily understand the rationale of the good that follows. We know very well that in these operations the secretions from the vagina and the urethra have a tendency to beget conditions favorable to bacterial generation, which in turn interfere with union, but the doctor supplies a state of things by means of the position of the lens, that permits of ready and careful antiseptic precautions; if that is the consequence of the operation of the limbs it is most decidedly a step in advance.

Dr. Mayfield said his paper is on the subject of perineoplasty and not perineorrhaphy; the difference between these operations being known he did not consume the time of the Society in discriminating them. It is the great object of medical men to treat, to the best of their ability, the conditions which they meet, and by the best methods we can devise. Any fact which will throw light upon any given subject, or will aid in treating our cases, is valuable; for this reason he presented for consideration such points as had come to him. He claimed there was more than one point in his paper; he did not attempt to cover the whole field, but simply to call attention to the little points that he deemed worthy of especial attention. Our chief object is to relieve suffering humanity, and everything which will assist us in this beneficent work should he received in the spirit in which they are presented.

SOCIETY NEWS.

SOCIAL FEATURES AT WASHINGTON.

Brilliant Reception to the Members of the American Medical Association, by Dr. and Mrs. William A. Hammond.

The reception from 9 to 11 Tuesday evening tendered by Dr. and Mrs. William A. Hammond to the American Medical Association was, as might have been expected, a most brilliants entertainment. There is no private residence in Washington better adapted for just such large gatherings as "Belcourt," and the idea uppermost in the minds of the visiting medical fraternity as they entered the brilliantly lighted mansion and gazed upon the luxurious surroundings was that their host was a man singularly blessed by fortune in the possession of so magnificant a home. At every turn the eye was met with some new beauty, some architectual perfection, some gorgeous furnishing, or rare work of art, for every corner of the globe has contributed its quota toward the general effect, which is one unsurpassed by any interior to be found at the National Capitol.

The greater number of the guests were in evening costume, though many of them having come to the city unprepared for such an occasion attended in handsome street gowns, with hats and bonnets, and, while many of their escorts wore the regulation black broadcloth, there was a plentiful sprinkling of those whose wardrobe did not boast such suits, but who rather than forego the anticipated pleasure of the reception, wisely concluded to make the most of things, and attend in what they had. Judging by the happiness generally depicted upon the faces of those present, it is safe to assume that the departure from convenality in garb

did not prove detrimental to their thorough enjoyment of the evening.

Mrs. Hammond stood at the entrance to the gold parlor to receive her guests, in a gown of white satin brocade, with front draperies of silver-starred gauze, caught on the left side with a long garland of buttercups and roses. The low neck corsage of brocade was trimmed with silver galloon, and about the throat was worn a necklace of diamonds, with pendant of white sapphire set in diamonds. Next to the hostess stood Mrs. George Lothrop Bradley, in violet satin-striped brocade, the low-neck corsage garlanded with Parma violets, clusters of which flowers also caught the draperies of the skirt. Diamond necklace and ornaments completed the toilet.

Mrs. N. S. Lincoln wore primrose color silk striped in black satin, with draperies of black point d'esprit. Strands of pearls composed the necklace, while jeweled pins fastened the lace on the corsage· The other ladies of the receiving party were Mrs. Augustus C. Tyler, in a gown of turquoise blue brocade, flowered in pink and slashed over deep fans of white point d'esprit, finished at the top with small pink rosettes. The V-shaped corsage was finished with a fall of point lace, small butterflies os which simulated shoulder straps. The jewels ware sapphrires and diamonds. Mrs. John Moore, wife of the ex-surgeon general, wore black satin brocade, with a cascade of jet falling from the shoulders of the low-neck bodice, and diamonds. Mrs. J. Mills Browne, wife of Surgeon General Browne, U. S. A., wore lavender crepe, with trimmings of white crepe, and diamond ornaments.

After greeting the receiving party, the company passed through the parlors to the square court, where on the highly polished floor at intervals throughout the evening those who cared to indulge in that pleasure availed themselves of the opportunity to dance. At the west end of the balcony was stationed the band which furnished the music, while every available space on the surrounding balcony was filled with guests looking down upon the brilliant scene below.

In one corner of the court was a large bowl of lemonade, while in the dining-room punch was served. This apartment with its Moorish fretworks carvings and brilliant coloring brought out by the many swinging lamps presented a most attractive appearance, from the picturesque standpoint no less than the gastronomic, and proved a favorite resort. Many of the guests were accompanied by their children, who seemed to enter into the enjoyment of the hour with a zest equal to that of their elders.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

Delaware State Medical Society, Rehoboth, June 9 and 10.

Maine Medical Association, Portland, June 9, 10 and 11.

Massachusetts Medical Society, Boston, June 9 and 10

South Dakota State Medical Society, Chamberlin, June 10, 11 and 12.

Rhode Island Medical Society, Providence, June 11 and 12.

Michigan State Medical Society, Saginaw, June 11 and 12.

New Hampshire Medical Society (centennial), Concord, June 15 and 16.

Colorado State Medical Society, Denver, June 16 and 17.

Ohio State Medical Society, Put-in Bay, June 17, 18 and 19.

Minnesota State Medical Society, Minneapolis, June 18, 19 and 20.

Medical Society of New Jersey, Long Branch, June 23 and 24.

SELECTIONS.

MODERN SURGERY.

The practice of surgery has always been more or less of a science. Even in the earliest times very serious surgical operations were undertaken with success, and some of them are now often wrongly proclaimed as modern in their origin. Ovariotomy was practiced by the ancient Hindoos. An example of prehistoric trephining may be seen in a skull from Pern at the Museum of Natural History in this city.

The morbid conditions which the surgeon has to combat are tangible and objective, so that his chief difficulties have been in the way of skillful manipulation of instruments, the management of blood vessels and the proper cleansing of wounds. But there are striking features in the surgical science of the past fifty years which mark epochs in its advance, and of which surgeons of other centuries could scarcely have dreamed. The first of these was the introduction of anæsthesia from chloroform and ether, making it possible for patients to undergo operations the very pain of which might under former conditions have caused their death. This has enabled the surgeon to prolong his procedure for hours if necessary, instead of limiting himself to the hurried seconds and minutes which must have seemed an age to the tortured and conscious sufferer. We are now so accustomed to hear of the use of anæsthetics in all operations that it hardly seems conceivable that so few years have elapsed since they were first employed. Another revolution was accomplished by a discovery which has affected both surgery and medicine alike, and that is the parasitic origin of disease. When it was learned that air and dust and water were everywhere filled with countless millions of invisible germs, and some species of these, by being inhaled or swallowed, entered and poisoned the blood, producing contagious and infectious fevers; that some were the cause of fermentation, and that the putrefac-

tion was absolutely impossible without their presence, it did not take long for the surgeon to investigate their relation to the wounds which he was obliged to make, and through which these bacteria might readily find entrance into the system.

Never before had he understood why erysipelas sometimes appeared in a wound, why blood poisoning would follow some of his operations; why some of his wounds would heal at once by first intention, while others would suppurate for weeks or show no tendency to heal; why tetanus or lockjaw was expected as an occasional complication; why hospital gangrene would haunt his wards like a dread phantom that could not be dislodged. How many thousands lives have been sacrificed through such ignorance? One need but to glance through some medical history, such as that of the war of the rebellion, to learn what havoc and devastation these invisible and unknown enemies made. Sabers, bullets and cannon balls were trifles compared with them.

More than three times as many soldiers fell victims to these impalpable foes during the war as were killed in battle. Fully one-sixth as many as were slain on the field died from surgical germ diseases alone, from the infection of their wounds by the myriads of the air. Now, the surgeon knows that no atmosphere, whether of mountain or sea, is absolutely free from putrefactive germs, and that the air of hospital wards and sick-rooms is particularly loaded with organic matter of all kinds, and with microbes in abundance. From these well-established facts has arisen what is known as the antiseptic treatment of wounds.

Substances have been found which kill these germs; among the first and best of them carbolic acid; and now we have numberless germ destroying agents. The modern surgeon gets rid of every microbe upon the surface of the part before operating, by shaving and thoroughly washing the skin with antiseptic solutions; every instrument, sponge, suture and ligature is treated or saturated with them; his own hands and those of his assistants must go through a similar process of disinfection; the operating-room is made as germ-proof as possible by causing each nook and corner and wall to be of such material and shape that they may be scrubbed down frequently with bactericides; often a spray of antiseptic vapor is played into the air above the wound during the operation; the towels, bandages, and dressings of cotton, lint, and gauze are all made similary safe. Should he meet with the old and too familiar symptoms, the surgeon knows there must have been some flaw in the preparations. The bacteria still occasionally outwit him; but the contrast between the results of to day and those of yesterday is marvelous. Aseptic surgery is of such recent origin, however, that there are still many surgeons, generally older men and in the provincial districts, who either have no knowledge of the scientific facts, or who, bound fast by hereditary prejudices, profess to disbelieve in their truth, and continue to immolate fresh victims year after year upon the altar of their own ignorance.—*New York Sun.*

DIGESTION.

Dr. William H. Porter, New York, in a series of lectures on digestion, assimilation, and oxidation, delivered before the polyclinic (*News*) commences the study of the fluids that act upon the materials or foodstuffs with the following very convenient table:

Fluid or Tissue.	Ferment.	Action.
Saliva.	Ptyalin,	Converts Starch into Maltose.
	Pepsin,	Converts Proteids into Peptones.
	Milk Curdling,	Curdles Casein of Milk
Gastric Juice.	Lactic Acid,	Splits Milk Sugar into Lactic Acid
	Fat Splitting,	Splits Fats into Glycerine and Fatty Acid.
Secretion of Brunner's Glands.		Liquefies Proteids at 98.5° T. Converts Maltose into Glucose.
Pancreatic Juice.	Amylopsin,	Converts Starch into Maltose.
	Trypsin,	" Proteids into Peptones.
	Sleapsin,	Splits Fat into Glycerine and Fatty Acid.
	Milk Curdling,	Curdles Caseine of Milk.
	Emulsive, (?)	Emulsifies Fat.
Intestinal Juice.	Diastatic,	Converts Maltose into Glucose.
	Proteolytic,	Changes Fibrine into Peptone. (?)
	Invertin,	" Cane Sugar into Glucose.
	Milk Curdling. (?)	Curdles Caseine of Milk. (?)
Bile and Bile Acids.		Emulsifies Neutral Fats. Converts Starch into Sugar. " Glycogen into Sugar. Excites Contractions of Muscular Coat. Stimulates Muscles of the Villi. Excites Vital Activity of Intestinal Epithelium. Moistens Intestinal Walls. Lubricates the Colon. Prevents Decomposition; is Antiseptic.
Hepatic Function	Glycogenic,	Changes Glucose into Glycogen.
	Bile Secreting,	For use in Digestion.
	" Excreting.	To Eliminate Poisons and Drugs.
	Peptone Destroying.	Converts Peptones into Serum-Albumin and Globules.
	Ptomaine Destroying.	Converts Poisonous Ptomaines into Inert Ptomaines.
	Germ Destroying	
Blood.	Diastatic Fibrin Forming.	
	Fibrin forming Ferments.	
Chyle. Liver. (?) Milk. Moist Tissue.	Diastatic Ferments.	
Muscle.	Peptone Forming Ferments.	

CARDIAC REMEDIES.

In a paper by Drs. Rummo and Ferranini, analyzed by Prof. See in *La Medicine Moderne*, December 11, 1890, the authors have endeavored, through experimental studies, to determine which of the cardiac remedies have a special action on the vessels, which on the muscular apparatus, and which on the nervous system of the heart. If, for example, in a case of aortic stenosis one should prescribe a remedy which increases pressure by contraction of the peripheral blood-vessels, the result would still further conflict with the action of the heart;

for to a circumscribed contraction which interferes with the free exit of blood from the left ventricle is added a general stenosis resulting from the contraction of the blood-vessels produced by the remedy.

The authors have shown by their studies that certain remedies, especially caffeine and sparteine, particularly influence the nervous system of the heart. Other remedies, such as helleborin and very particularly strophantin, produce a stimulating action on the myocardium, while they are without influence on the nervous system of the heart; nerium oleander, digitalin, erythrophleine act principally on the myocardium, while they are without influence on the nervous system, while cocaine and convallaramin act principally on the myocar dium; therefore the authors conclude that in cardiac cases, where there is loss of power in the heart, that caffeine and sparteine should be prescribed. When there is feebleness of the heart, occurring in patients suffering from insufficiency and from aortic stenosis, or whenever the resistance is situated in the systemic circulation, recourse should be had to strophantin, while in mitral stenotis, or where there is obstruction in the pulmonary circulation, recourse should be had to digi talis, adonidin and convallaramin.

With these views Dr. See is in perfect accord, though he regards as an important omission the fact that iodide of potassium is not included in this group, since he believes that there can be no possible therayeutics of heart affections which do not consider the diuretic action of this remedy and of lactose, and of the influence of the iodide of potassium on the organs of circulation.—*Boston Med. and Surg. Jour.*

LELOIR'S METHOD OF TREATING SYPHILIS.

This is to be found in the *Journal de Medicine de Paris*, November 16, 1891. Primary syphilomata are treated with mercurial preparations from the first. But mercury is not given internally, as a general thing, until the appearance of secondary symptoms. According to the intensity of the syphilitic phenomena, for fifteen days inunctions of mercurial ointment, containing 30 to 60 grains, are prescribed. At the end of the fortnight the inunctions are discontinued for two or three weeks, according to the requirements of the case, and are renewed again and dropped in the same way for the first ten months. During these periods of active treatment and intervals of repose, care must be taken to treat locally all syphilides with preparations of mercury. Syphilides on the skin require mercurial plasters and mucous patches solutions and ointments containing mercury. In certain rebellious forms of syphilitic skin eruptions full baths are of great benefit, each containing about 110 grains of mercury. Perfect cleanliness and general hygiene, particularly the hygiene of the mouth, together with tonic treatment, are of great importance. Country life or a residence at the seashore is sometimes imperative. Nothing demands more care and watchfulness than the administration of mercury and iodide of potassium. They are capable of producing grave functional and structural changes. Profound forms of neurasthenia exist that are due to the abuse of specific treatment and to no other cause. The headache, vertigo, loss of memory, change in character, etc., are too often set down to cerebral syphilis. The unwary practitioner increases the doses with disastrous results. It is impossible to exercise too great vigilance in this matter.

At the end of six or ten months inunctions may be applied for ten days only, at intervals varying from three to six weeks or two months. So much for the mercurial treatment during the first and second year. Diaphoretics must be prescribed, cathartics now and then, and systematic exercise, in order to get the best and prevent the evil effects of mercury. In exceptional cases of persistent headache and pains in the bones that mercury fails to relieve, 30 to 45 grains of iodide of potassium, to which 8 to 15 grains of bromide of potassium have been added, may be given temporarily.

At the end of the second year treatment varies greatly. If for a certain time there have been no syphilitic manifestations, mercurial inunctions need only be prescribed every three months for ten days at a time, each application containing 30 to 45 grains of the drug. The inonctions at this period of the disease are to be followed in a few weeks by iodide of potassium in doses of 30 to 45 grains after some one meal. The iodide of potassium must be used every three months for a while during the third year, but must then follow, and not accompany, mercurial inunctions. Should syphilitic phenomena return at any time, treatment will naturally depend upon their character, severity and duration. From the third or fourth year onward, as a precautionary measure, it is well to insist upon ten day's mercurial inunction every spring and fall, to be followed by daily doses of 30 to 45 grains of iodide of potassium for three weeks.

HYGIENIC MEASURES IN CATARRH.

At this time, when so many people are suffering from catarrhal affections of the upper air passages, a few suggestions published by Dr. Bosworth, of this city, in the *Medical Record*, are very pertinent. He justly contends that the Characteristic habit of "taking cold" by persons suffering from catarrh cannot be broken by local treatment, but that much may be accomplished by certain common sense hygienic measures—*e. g.*, the use of proper clothing in the bath. In the matter of clothing he insists that the first rule should be that patients suffering from catarrhal diseases should use woolen underwear, selected with reference to the functions of the skin, and therefore "porous, permeable and such as shall admit of the freest circulation of the air." Elasticity and porosity are, in this view, indispensable qualities of the fabric, and hence heavy flannel underwear, causing discomfort and perspiration,

is to be avoided. In the use of the cold bath Dr. Bosworth finds an invaluable remedy for the hygienic treatment of catarrhal patients. Exploding very thoroughly, as he does, the popular delusion that "a Turkish bath breaks up a cold," he shows that the best method of taking the cold bath is as the tub or plunge, and if this cannot be endured daily, cold sponging should be resorted to. The inestimable virtue of the bath or sponging is not in its cleansing power, but as a tonic to the skin, promoting a healthy activity of its heat-regulating function. That illustrious sufferer from chronic catarrh, Thomas Jefferson, recorded his almost complete cure by the use of the cold bath.—*N. Y. Herald.*

OBITUARY.

Dr. Fordyce Barker.

The clerical and legal professions have recently been called to mourn the sudden death of distinguished and much honored members. The medical profession is not spared a similar experience. A bright luminary in their peculiar firmanent has been extinguished by the same irresistible and inevitable hand. Dr. Fordyce Barker, æt. 73, died suddenly on the 30th ult. He studied medicine with our much esteemed friends of earlier years, Drs. Henry I. Bowditch and C. H. Stedman, of Boston, located in New York City, where he soon distinguished himself in his chosen specialty. His mental, moral and professional worth won for him the presidency of most of the leading societies of our profession, active and consulting surgeon to many of the hospitals. He was also a member of foreign societies, whither his fame had reached, a large contributor to medical literature, and the author of a work on puerperal diseases, the merit of which has gained for it translation into many of the European languages. His lamented death furnishes a warning to his survivors, do to-day zealously whatever thy hand findeth to do.

PUBLISHERS' NOTICES.

Popular Health Resorts, Lebanon, Mo., and Eureka Springs, Ark., reached via The Frisco Line. For illustrated pamphlet giving full particulars, address D. Wishart, Gen'l Passenger Agent, St. Louis, Mo.

The Soutaern Limited to New York and Boston, via the "Big Four Route," is the "fastest train in America." The only line from St. Louis via Lake Shore & Michigan Southern Ry. landing passengers in Grand Central Station, New York City. Leaves St. Louis 8:05 a. m. daily; vestibuled from end to end; through sleeping car; cafe and dining car service. Ticket offices, corner Broadway and Chestnut streets, and Union Depot, St. Louis, Mo.

Medical Books.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather binding. Published by Birmingham & Co. 1882. List price, $5.00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

J. H. Chambers & Co.,
914 Locust Street, St. Louis, Mo.

The Review wishes its readers not to overlook the many attractions offered to travelers by the Chesapeake & Ohio R. R., and also the exhilerating mountain air and scenery surrounding White Sulphur Springs, West Va., when they come to contemplate the oppressive heat of the summers in St. Louis.

We desire to call the attention of all concerned to one Geo. A. Hollis, who is representing himself as an agent for the Weekly Medical Review, and besides the effort to victimize persons in other ways, pretends to be able to furnish the Review, *Medical Brief*, and also a membership in the St. Louis Library Association, all for $3 cash, whereas the subscription price of the Review alone is $3.50 per year. We take this early opportunity of denouncing this scamp as a fraud and warn all persons not to allow themselves to be thus victimized. We last heard of him at Freeport, Ill.

Medical Review Association.

Interior View of the New Buffet Cars now Running on the Wabash Short Lines.

During the past two years great improvements have been made in the Sleeping Car Department of the Wabash Line, and these cars are to-day the most perfect traveling conveyances known. The seats have been widened and fitted with high-cushioned backs, making them as comfortable as any easy chair; electric bells have been added by which any passenger can summon the porter at any hour; Buffets have been introduced, with their choice lunches, etc., and wonders have been accomplished in the way of upholstering and interior decoration. This magnificent service extends over all the Wabash Lines, and the cars are of the latest and best designs.

It would seem that the highest degree of luxurious ease has been reached in the Wagner Compartment Car. It affords the traveling public and particularly the ladies who are alone not only the greatest protection and comfort, but evil effects to health, which are the usual sequence of a trip in the old style sleeping car are in these modernly constructed apartments avoided absolutely.

ORIGINAL COMMUNICATIONS.

THE BRAIN OF AN EPILEPTIC.

BY A. H. MEISENBACH, M D.,

[Read before the St. Louis Medical Society, May 16, 1891.]

The patient from whom this specimen was taken was a male, æt. 47, and about 5 feet 4 inches in height; weight about 170 pounds at the time of death. Formerly he had been a cigar maker by trade but for the last 18 years had worked as a laborer, his addiction to drink compelling him to give up his former trade. Has been an epileptic for 18 years. The epileptic paroxysms, were irregular in their manifestations; once or twice a week or once in two weeks.

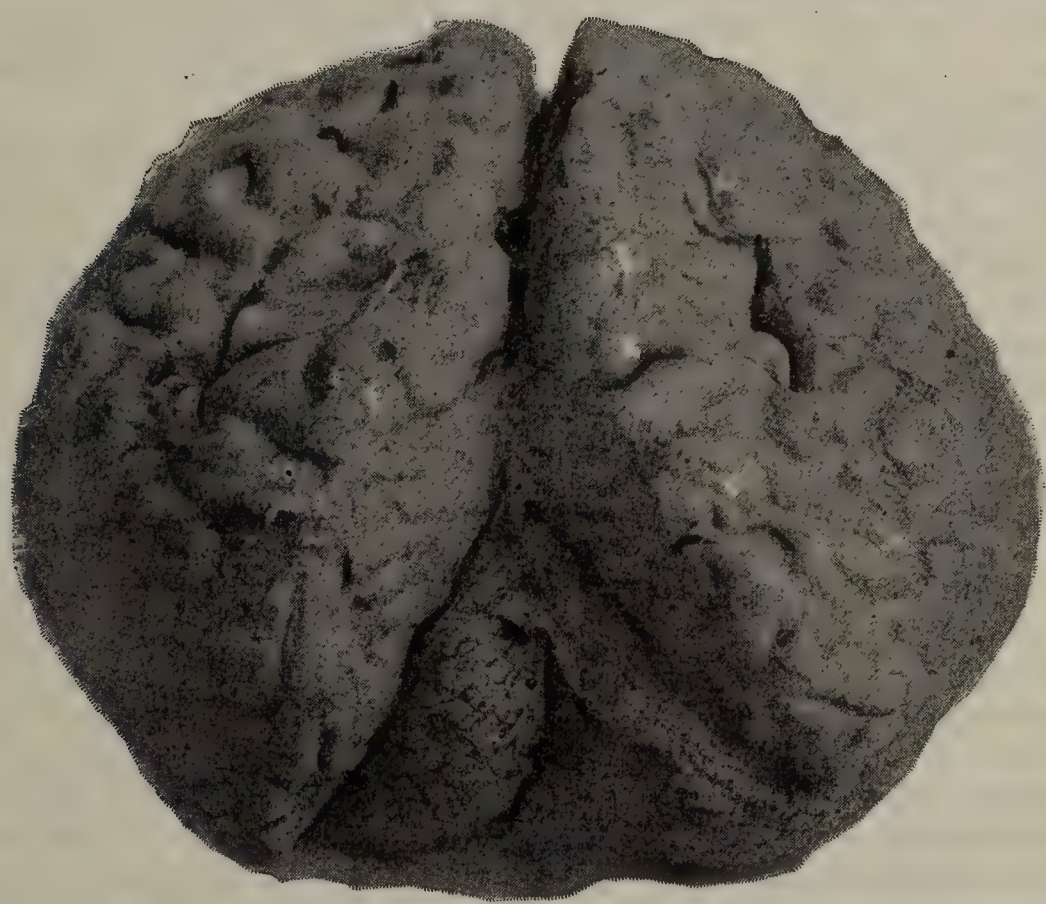
As his wife stated, his habits had a great deal to do with their frequency, excessive indulgence in drink causing them to occur more frequently. Physically he was well developed, mentally he was weak, and of irritable temper. The post-mortem was made 18 hours after death. I present the specimen to the society to show the pathological changes that are visible microscopically.

The calvaria was easily removed. No sign of injury, such as fracture or exostosis, visible. The circumstance that presented itself to the mind on viewing the brain still covered by the dura and within the cranial cavity was that the whole brain mass was too small for the cavity; that it was contracted or shrunken.

There was considerable venous congestion of the meninges, and when removingthe brain with dura covering it, considerable blood escaped from the sinuses.

After the brain was removed from the cranial cavity I found the following pathological changes present, viewed macroscopically.

On attempting to free the dura from the brain I found extending between the dura and arachnoid numerous bands of organized lymph. These were especially frequent on either side of the longitudinal fissure. The arachnoid and pia were opaque and very markedly thickened, so that when lifted off from the brain substance they presented the thickness almost of a normal dura; this opacity and thickness became very marked after a few hours' immersion in alcohol. The thickening is also present in the extension of the pia into the sulci.



A A—Incision through Cortex into Lateral Ventricles.
C C C C—Bands of orginized Lymph. Connecting Dura and Arachnoid.
E E—Thickened and infiltrated areas at the sides of Longitudinal Fissure.
X—Convolution from which Arachnoid and Pia have been removed, showing thickening of Arachnoid and Pia.

At the base I found the vessels markedly altered by atheromatous degeneration.

The basilar artery shows degneration in the greater part of its caliber, the right posterior communicating, is perceptibly degenerated and smaller and the left posterior communicating is lacking. The cut ends of the carotids also show by the way that they stand open that they are involved. Section horizontal on a plane with the top of the lateral ventricles through the hemis-

pheres reveals the circulatory apparatus on the floor of the ventricles also changed; especially the choroid plexus of the lateral ventricles is much thickened. Removal of the fornix also reveals the velum interpositum and choroid plexus thickened, and fine threads binding these structures to surrounding parts, showing that chronic changes have taken place, the vessels that enter the brain substance are very prominent and their walls rigid and infiltrated.

The brain substance macroscopically makes the impression of being atrophied, yet this cannot be demonstrated without microscopical examination.

Notwithstanding the fact that the microscope has revolutionized pathology, yet in the investigation of the pathology of epilepsy not much light has been thrown on the nature of the structural changes that take place in this disease. The changes that are described to take place in this affection are also common to other diseases.

Some of the changes described, are increased size of the blood vessels of the medulla oblongata by Schroeder van der Kolk, distention of the peri-vascular sheaths with pigment, and the yellow pigmentation of the nerve cells of the medulla described by Voisins.

Meynert also has described induration of the cornu ammonis (pes hippocampe), and has attached considerable weight to this fact, but this change is also not constant in epileptic brains and so has also lost some of its importance.

HYGIENIC CONDITIONS OF PASSENGER CARS.

BY GRANVILLE P. CONN, M.D., CONCORD, N. H.,

First Vice-President National Association of Railway Surgeons.

The problem of securing fairly good hygienic conditions in railway passenger cars is one that presents more complications than almost any other question connected with the transportation of passengers.

From thirty to sixty people, representing different ages and physical conditions, having tickets of the same class, ride from one hour to two or three days in coaches having but little ventilation, and becoming more and more filthy with each succeeding day. These people will have variable mental and intellectual powers, from the helpless infant to the crank who seems to study how to make everybody uncomfortable, and as the hygienic conditions become worse and worse on account of the accumulating dust, cinders and other refuse matter, as well as a more disgusting condition of the closets, the women and children are obliged to endure and suffer far more than the men, for the reason that they are more strictly confined to the car, the men more generally going into the open air every time the train makes a few minutes' stop.

When we take into consideration the hygienic conditions that generally exist in an ordinary passenger coach that is used for a continuous journey of from five to fifteen hundred miles, it should not excite surprise that by the time their destination is reached the people are disgusted with their accommodations and are suffering with headaches and, perhaps, nausea. It is true that passengers are more or less responsible for the general want of cleanliness in the car, for very many good people seem to forget themselves when journeying and permit their children, and even allow themselves, to throw upon the floor of the car nutshells, banana and orange peel, crumbs and remnants of lunches. In warm weather these refuse matters will, in a short period, render the atmosphere of a coach almost unbearable to a sensitive stomach, and the effect upon the nervous system is very depressing.

Parlor and sleeping cars under the care of a special conductor and porter are not allowed to remain very long in an uncleanly condition, yet it is not very unfrequent that the closets of these coaches become very offensive and disgusting when making unusually long runs.

It is the common first and second class coach that makes a continuous run of one, two or three days which attracts attention, and when we find the condition of the floor and closet untidy and unclean, and combined with this an atmosphere saturated with the products of respiration and perspiration, we have those unwholesome factors that serve to render most people extremely uncomfortable and unhappy.

It would not seem necessary that a car running only for an hour or two, and then remaining upon a side-track for half a day, should become offensive, yet it is not unfrequent in hot weather to find the odor of the closet pervading the whole car, and that, too, after it has been swept and dusted, but no one seems to remember to examine into the condition of the closet. This may be said to represent some of the many conditions that are far from being hygienic in their character.

The first question to be discussed must, in general terms, deal with the subject as a whole, viz: Is it possible to make the necessary improvements without at the same time making such radical changes in the management of trains as seriously to inconvenience the traveling public.

In the early history of railroads, interchange of cars and great through lines had not been developed. The lines were short, and passengers did not feel that it was a hardship to change from one car to another. Even with such delays so much better time, as well as comfort in traveling, was experienced, that every one was satisfied. Now, long continuous journeys in the same coach have found favor with the public, and the management of our roads has made every effort to meet the popular demand. Much of this through travel is in parlor or sleeping cars, palatial in their appointments, and which, as I have said, are taken better care of than the ordinary coach.

Still, we find that the trunk lines in meeting the demand for through transportation are obliged to place in through trains first and second class coaches, and every

one is familiar with the advertisement of such lines—that they are running first and second class, as well as palace cars, to some great railway center, or to the coast, as a distinguishing feature of their line to some other route that requires frequent changes from one train to another. This may be cited as one of the first of the many obstacles to be overcome in the solution of the hygienic problem, as a run of one, two or three days may and probably will show very great changes in temperature, especially if the journey be from north to south or southwest, or *vice versa*; therefore the conditions affecting heating and ventilation must be constantly changing.

Then, again, coaches running over several roads may be subjected to considerable changes of speed, therefore the atmospheric pressure on the outside of the cars will be changed, as the atmospheric pressure on the outside of a car moving at a rate of thirty-five or forty miles an hour, is radically different from what it would be if that coach was running only twenty miles an hour. This may seem a very small matter, but when we reflect upon the condition, and remember that a great amount of fresh air is forced into a car by reason of this atmospheric pressure, it will be seen that it really constitutes an important factor in the ventilation of a coach under our present system of construction of passenger cars.

With the thermometer 20° or 30° below zero, one does not need to sit beside a car window very long before he will realize that a great deal of cold air is finding its way into the space around him, and almost every one has sometimes passed through a section filled with smoke from brush fires or old ties, and has realized how nearly instantaneously the odor will penetrate the car. It appears to me that this feature of air finding its way into a car through every opening crack, is the salvation of the traveler in cold weather, when people will sacrifice fresh air for heat, and therefore close ventilators, as they are called, in the roof of the coach, and so far as they can, hermetically seal the car. Were it not for the fact that air is forced into the coach by reason of the atmospheric pressure, and that train men and others are passing in and out at every station, thereby keeping the doors in motion, I am not sure but passengers would, in the coldest weather, die from the depression caused by the polluted atmosphere. As it is, they remain sometimes for hours in an atmosphere rendered impure from the respiratory products of all sorts of people, some of whom may have serious forms of disease, and it is one of the immutable laws of health that a system loaded with diseased germs or depressed by contaminated air or polluted water, has less resistance to the invasion of disease, and less ability to throw off any premonitory symptoms of ill-health than one who has pure air to breathe, and pure water to drink.

In this connection I would add that while there are a great many patent designs offered to the management of our railroads for ventilating cars, none as yet have proven so satisfactory as to be universally adopted. It is but an act of justice to add that many roads have spent a great deal of time and money in experimenting with designs that seem, theoretically, to be of some account, but nothing as yet has stood the test of practical work, under all conditions, like the air brake or some of the other mechanical means of improving the train service, or rendering it relatively safer or more economical.

Many of the devices have good points, and under certain favorable circumstances will bring about results that justify us in predicting more positive improvements in the near future. It is too much to expect any system to be effective at all times, as the conditions vary so widely between a car in motion and one standing still at a station that any one system cannot be of use, except as provided for.

Now, while we may hope to secure improvements in heating and ventilation, let us give a moment's attention to some method that might reasonably be expected to improve that department of the service which is known as car cleaning. As now conducted in the Eastern States there is some one at points where cars are set out or remain over night, who is supposed to have jurisdiction over the work, employs the help, keeps their time, etc. At some large railroad centers the work is done by contract, and the contractor receives a stated sum per car, and employs his own help. I do not know of any road in New England that employs any person who has given any special thought to the work, or who might be considered as an expert in such matters, therefore there is but little if any system, each workman doing his or her work in a routine, if not in a perfunctory manner.

Frequently cars are required for use almost immediately, and one or more boys are raising a dust with their brooms before the passengers are fairly out of the coach. In such instances all that is done is to clear the floor of the most prominent portions of dirt and cinders, no attention being given to the closet. Can this order be changed without interfering with the practical working of the trains? I believe it can; but in order to bring about practical results it may be necessary to educate the practical railroad man in the mysteries of what constitute a hygienic car.

Sanitarians, while experts in the hygiene of dwellings, grounds, cars, etc., are very liable to be very much too theoretical on matters pertaining to an active train service to assume dictation over conditions only understood by practical railroad men. A happy combination of the practical and the theoretical should be brought out, developed and thoroughly tested under the varied conditions ordinarily found upon all lines of roads, before any radical change should be recommended, for it is only by a general adoption of some practical and economical system by all roads having interchange of rolling stock that an improvement can reasonably be expected.

The management of train service has a vital interest in this question, for an intelligent public is becoming

more and more critical upon matters that may affect the health of themselves or their families. People traveling for business or pleasure across the continent, or from the lakes to the gulf, pay the transportation lines whatever may be the tariff at the time; but they reserve the right to criticise the hygienic condition of the cars, as well as the want of politeness of the employes. It is generally understood that want of politeness in an employe is an unprofitable investment in advertising, and an unclean coach will not pay any better dividends.

In general terms what is needed is thorough instruction of the employe, whose duty it is to take care of the cars, as well as to instruct the train men, that something can be done by them to keep a coach clean when on the road. Frequent inspection should be made, certainly at the end of every division service, by some one so well informed about the service as to detect at a glance any slighting of the work at the place where the coach was last cleaned, and who should report the same at once. The responsibility should be placed, employe corrected, the same as if he had been guilty of slighting a piece of mechanical work that would endanger the lives of passengers.

It has been found necessary to employ men to look over the train at frequent intervals, and those men become very expert in detecting a cracked wheel, a journal that has lost its true allignment, that a nut is missing, or a brake that is insufficient.

Such service may seem humble, and the passenger may scarcely notice the person as he quietly passes around the train, yet his work is invaluable, and you never hear complaints from passengers when an order is received from the quiet man to vacate the car, as it is not safe to run it any further. Every one from the highest to the lowest accepts his *ultimatum*, and without question, makes arrangements to carry out his order.

I have seen coaches so filthy that some one should have had the power to substitute a clean, well ventilated car for the unclean one. How coaches shall be made clean is a problem of no small proportions, as we have shown that only a limited time can be allowed, and, therefore, to do good work, modern conveniences and mechanical ingenuity must be substituted in part for the manual labor now employed. Hot water and steam are our best disinfectants, deodorizers and filth destroyers. It is also a well known fact that surfaces superheated by dry or moist heat become dried and free from the odors of moist surfaces very much sooner than the same surface would if wet with cold water, which in cold weather is of great importance, as a car reeking with moisture incident to a washing in cold weather is about as uncomfortable and unhealthy an apartment as can be found.

Whether it will be necessary to bring all coaches that require cleansing within a reasonable distance of a stationary engine in order to utilize steam from its boiler, I will leave to the practical railroad man; yet I will venture the suggestion that the same result might be attained by attaching a hose to any locomotive near at hand, and which was not to be sent out for an hour or two. To carry a jet of steam into a urinal for a few moments dissolves all the salts deposited upon its surface, and the introduction of steam under twenty-five or fifty pounds pressure, in the corners and crevices of a closet for a moment will destroy the most virulent germ that is lurking there. How it shall be brought about is only a question to be settled by practical mechanics.

I am not making any claims at originality in this paper, but am rather striving to make the most of what may be found in any railroad yard. Let us use reason in all things, and while these are matters that may seem humble when compared to some brilliant act of modern antiseptic surgery, yet the public are just as much interested in its success, as they are hopeful that they will not need our services as surgeons. Now as the public become interested, we may be sure the management of our roads will not be far behind in their expectations that we will take cognizance of this work, for it is to us that they will look for suggestions. While we are looking after the lives and limbs in the interest of the employes, we should also have a thought for the health and happiness of the passengers.

CASE OF DOUBLE UTERUS AND VAGINA.

BY N. GUHMAN, M.D., ST. LOUIS.

Read before the St. Louis Medical Society, May 2, 1891.

Mrs. A. æt. 28, married six years, well developed. First pregnancy four years after marriage, there was nothing unusual during her term of pregnancy. I and Dr. Langan delivered her February 6, 1889, under the influence of chloroform, of a female child. It was a breech presentation, and never entered the inferior strait, and followed by a complete inversion of the uterus, which I reported to the St. Louis Medical Society.

April 25, 1890, I was summoned again to deliver her the second time. Upon examination I found it another breech presentation. Labor progressed favorably until entering the inferior strait, and then it became firmly lodged. I sent for Dr. Langan and my son to assist me. Under the influence of chloroform and in position I proceeded to deliver her. I introduced my fingers in the vagina, but to my surprise I could not detect any child nor could I find the mouth of the uterus. I could feel a something through a partition, but I did not know what that partition was. I was under the impression that from the change of the position of the woman, and under the influence of chloroform, the uterus with its contents was displaced and the mouth of the uterus was out of my reach, although thinking that such a state of affairs was impossible. I introduced my finger backward and forward with always the

same result. I asked Dr. Langan to make an examination. He also got his finger in the same canal, and we still were not aware that we had to deal with a double vagina and uterus, we could not detect the neck or mouth of the empty uterus No. 2, it was also drawn out of our reach.

Being perplexed at finding such unusual complications, which we could not account for, we agreed to send for Dr. Mooney, who resided near by. We kept our patient under the influence of chloroform. When Dr. Mooney came, he also got his fingers into the empty vagina. We concluded to make an ocular examination, which revealed a septum arising from the orifice of the urethra, and extending along the median line to the fourchette, completely separating the vagina into two canals. We introduced our hand into the vagina leading to the impregnated uterus, and delivered the woman of a live female child.

After delivery the condition of the woman was such that we did not think it prudent to make any further examination. Our patient improved rapidly, and on May 11, 1890, Dr. Mooney and I made another examination and found things as above described, in each vaginal cavity we found a well developed cervix; we introduced a uterine sound in the left uterus to a depth of two and a half inches. On account of some blood flowing from the uterus after our examination and only sixteen days after delivery, we abstained from any further examination. Since, I introduced the sound in the other (right) uterus, and also found its depth about two and a half inches. From our examination and observation, it seems that both uteruses have been im pregnated, the right first and the left second; She did not menstruate during either pregnancy.

It is my opinion that we have more double vaginæ and uteri than we are aware of, because it is only by accident that we find these anomalies.

I have treated my patient in my office after her marriage for a slight flexion of one of the cervices, with a speculum, made digital examinations, delivered her once and I only found her condition by accident at her last confinement. All other such cases of which I have read were found by accident.

For the development of anomalies of vaginæ and uteri, I would refer you to some of our text books.

FOREIGN BODY IN BLADDER.

BY ALEXANDER J. MULLEN, JR., M.D,

Surgeon M.C., L. E. & W., L. N. A. & C. R. Rs. A.A. Surgeon U.S. Marine Hospital Service, Michigan City, Ind.

Reported before the National Association of Railway Surgeons Meeting at Buffalo, 1891.

January 21, 1881; Mrs. F, æt. 26, married, child two months old, was presented with the following history. Purchased a large white rubber womb veil or protector, and on the afternoon of January 17, 1891, had to the best of her ability, introduced the same.

Soon after she was taken with great pain, described as being identical to that caused by labor.

Suffering intensely for several days and growing worse, her husband became alarmed, and brought her to my office.

The woman had made several ineffectual attempts to remove the protector. An examination of the vagina failed to reveal the article.

Dr. W. R. Godfrey was called in and administered an anæsthetic. The vagina, womb and rectum were carefully and thoroughly examined—but in vain.

This progress made, it was learned that the urine was very offensive, scanty and the desire to avoid it frequent.

Exploration of the bladder by a sound "rung" out a diagnosis.

Dilatation of the urethra and the introduction of a pair of forceps was followed by the removal of the rubber protector.

It was completely encrusted with phosphates, and measured six centimeters in diameter.

DRAINAGE OF THE VENTRICLES OF THE BRAIN.

A communication by Dr. A. Broca on this subject appears in the *Revue de Chirurgie* for January, 1891. From the results obtained by himself and others in drainage of the ventricles, in a certain class of cases, he is of the opinion that the operation is one that the surgeon is perfectly justified in attempting. In a number of cases in which he had trephined, the relief, within an hour, from the symptoms of compression was very marked. He reports the success of the operation in a case of hydrocephalus in a child three years old. The patient was in very bad condition from loss of sleep and exhaustion consequent upon the convulsive movements of the upper extremities. There were also present contractures of the right upper extremity. Deglutition and mastication were performed with great difficulty; speech was inarticulate; and walking or standing was impossible on account of the great weakness of the legs, though no paralysis existed. The skull was trephined, a trocar and aspirator were introduced into the ventricular cavity, and from 50 to 60 grammes of fluid were drawn off. A caoutchouc drainage-tube was left *in situ* for fifty days. There was no febrile reaction following the operation, and there was no suppuration or any other unpleasant symptom. In twenty-two days after the operation the child was taken from the hospital very much improved. The convulsive movements had entirely disappeared, very little of the contracture remained, and the child was able to grasp heavy objects with the right hand. Sleep was more tranquil and speech more intelligible; deglutition, however, was not much improved. Walking was becoming more natural day to day.—*New York Med. Jour.*

WEEKLY MEDICAL REVIEW.

G. W. BROOME, M.D., EDITOR, - - - 520 Olive St.
WILLIAM DICKINSON, ASSOCIATE EDITOR, 1322 Olive St.

TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this REVIEW, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings, carefully prepared in ink, accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the ST. LOUIS WEEKLY MEDICAL REVIEW, 520 Olive Ltreet.

All letters containing business communications or refering to the publication, subscription, or advertising department of this REVIEW, should be addressed to THE MEDICAL REVIEW ASSOCIATION, 914 Locust Street, St. Louis.

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SATURDAY, JUNE 13, 1891.

WEEKLY MEDICAL JOURNALS VS. MONTHLYS.

No progressive physician will subscribe to a monthly medical journal when he can have a weekly medical journal at about the same price.

The weekly journal supplies the progressive doctor with pretty nearly four times as much reading matter, and too, by installments. A copy of the journal containing an abundance of fresh matter, reaches him at the end of each week, and by the time this is thoroughly digested another issue comes along and he is thus regularly furnished with the very latest and best thought of the profession weekly.

Of this issue of the WEEKLY MEDICAL REVIEW 5,000 extra copies will be mailed to non subscibers throughout the country with the view of presenting some of the advantages of a weekly medical journal over a monthly, and it may be seen that there are no valid arguments in favor of the latter.

By referring to advertising page x of this number a prospectus and subscription blank may be found which, if filled up properly, and returned to the MEDICAL REVIEW ASSOCIATION, 914 Locust Street, St. Louis, Mo., will place your name on the list of subscribers of the WEEKLY MEDICAL REVIEW.

ST. LOUIS MEDICAL SOCIETY.

Though the usual attendance at its meetings is good, yet a better is desired. On an average about forty members are present. This is less that one-seventh of the entire membership. Why will not a larger proportion attend and contribute papers for which they are so well prepared by reason of their wide attainments and large experience? 'Tis selfish to acquire and hoard and not impart; they can give liberally without impoverishing themselves, and in so doing greatly enrich those who hear.

St. Louis has surgeons and physicians that will not suffer in comparison with those of any city; the achievements of some of them have won for them a worthy name and enviable fame, and are a sure prophecy of greater and better things. Their contributions to the Society have become an integral part of the latest and best medical literature. Let us hear often from these, since they are able to collate and convey to the Society the conquests of art and science over the might and ravages of disease presented in the numerous hospitals.

The non-attendance of some is excusable, but the habitual absence of others and those whom the Society has honored, can hardly be justified by themselves. Has motive vanished? It is almost proverbial that attendance ceases when once ambition for the highest seat has been satisfied; the President's chair becomes the vestibule of the charnel house of society interest.

This fact has been observed and emphasized by one of our members, who himself has passed the chair, and uttered the notes of warning to his successors to avoid this mortal proclivity.

The younger members are conspicuous by their absence; the award of the more regular attendance must be accorded to the senior members. This ought not so to be. The juniors must soon assume the responsibilities of the Society. Cannot the persuasive solicitations of the Executive Committee in the exercise of their happiest methods secure a more general participation on the part of the members. Those who attend alone receive the benefit of what transpires; the absent can never know the great loss of which they deprive themselves. The best things often occur when the faithful member is only occasionally absent; of how much greater privation does he inflict upon himself who is habitually absent.

The Society has ordained extensive agencies for giving worthy publicity to the transactions of the evening.

The Executive Committee prepares before hand the programme, the stenographer commits to paper the discussions; these pass the cognizance and approval of the "Committee on Debate and Publication," and these undergo a careful revision and critical elimination of the "official editor," who, in the conscientious discharge of his duties endeavors impartially to present each speaker in his best garb to the medical world. These appear promptly in the REVIEW and in other journals at a distance and are earnestly sought for by an ever-increasing number of others.

Therefore, let the defunct members be resuscitated, the indifferent aroused, and undergo a new revival, evince an active existence by declaring by their presence in open society: "Here am I." Let the occasional be habitual attendants, and all with new zeal strive for the promotion of the interests of the Society. There is a powerful inspiration in numbers, from which there is but a single step to enthusiasm. All good men are urged to become active members, and all physicians accidentally in the city are cordially invited to attend the meetings of the Society on every Saturday evening in the Polytechnic Building.

PROFESSOR SENN.

This distinguished American surgeon delivered the address in surgery, by invitation, before the Ontario Medical Association at its annual meeting held at Toronto, last week. Subject of the address, "The Surgical Treatment of Intussusception; Away with Koch's Lymph!"

In next week's issue of the REVIEW will appear a lengthy contribution from Professor Senn under the above heading, detailing the results of his experimentations with the Koch lymph. The last nail has been driven in its coffin and the uxorious devotees at the shrine of sensationalism together with the St. Louis man who intended "to open up a field for its application vastly greater than that even of tuberculous proper" will likely continue to withhold their "experiments with the Koch lymph from the press" indefinitely.

HYGIENE AND THE PULLMAN PALACE SLEEPING CAR.

"We take the following from the WEEKLY MEDICAL REVIEW of May 23:

"We note that Dr. Conn of Concord, N. H., read a paper before the Buffalo meeting of the National Association of Railway Surgeons upon the subject, 'Hygiene of Railroad Passenger Cars.' We have not seen Dr. Conn's contribution, but we are curious to know just how he handled the rules of the preservation of health as they are applied to those cars which go under the name of 'Pullman palace sleeping cars.' It is very proper in this association of railway surgeons to take up and discuss just such subjects, providing the gentlemen constituting this body discuss the subject from the standpoint of the passenger, the individual who is most concerned in the hygiene of the sleeping cars, and not from the standpoint of the Pullman monopoly. It has, however, been clearly shown, time and again, in the history of the Pullman company, that competitive efforts have all been systematically frozen out, have rarely ever received encouragements from those who manage the different railroad corporations thoughout this country and hence the natural inference must be, that this gigantic monopoly holds the majority of the railway officials in bondage, and if there be any truth in this conclusion we cannot expect the National Association of Railway Surgeons to antagonize Mr. Pullman's ideas of hygiene. We, however, have the greatest faith in the belief that if Hygeia, the daughter of Esculapius and goddess of health, had been asked to perform the necessary acrobatic feats in preparing for the night in a 'Pullman berth,' and during the same night allowed but about as much pure oxygen as would barely sustain the life of a goat in Lilliput, she, no doubt, would have very promptly condemned the Pullman palace sleeping car as an intolerable nuisance."

I cannot find more appropriate words with which to reply to the remark of the REVIEW that it 'cannot expect the National Association of Railway Surgeons to antagonize Mr. Pullman's ideas of hygiene' than those of our worthy past president, Dr. W. B. Outten, in his address delivered at the recent meeting of this national association held at Buffalo, when he said:

"Some of the profession think that the railways employ them for the purpose of defrauding justice, controverting truth and exercising functions of a generally questionable character. There is no middle or doubtful course for the profession; if they do not maintain the noble dignity of their calling certainly none outside are likely to. No physician in the service of a railway company can afford to loss his individuality, employed for specific purposes professionally, and to be of the best use he must act with strict conformity to this; the very instant he swerves from the real standard of his calling his effectiveness ceases, distrust follows, and he ultimately becomes an object of suspicion and contempt by those employing him.

"If the REVIEW will patiently wait until Dr. Conn's paper is published it will find that the doctor has not lost his individuality nor his independence of either thought or speech on the important question he has handled in such a masterly way in his paper read at the late meeting of our association.—*The Railway Age.*"

We have not only had the pleasure of reading Dr. Conn's valuable contribution, but have the privilege of presenting the same in full to the readers of the REVIEW in this issue.

Now is the time to subscribe for the WEEKLY MEDICAL REVIEW.

MEDICAL ITEMS.

ANNALS OF SURGERY.—Those who may be desirous of studying the pathology of appendicitis, the indications for laparotomy, and the technique of operations for its relief, will find in the *Annals of Surgery*, April, 1891, the views of several distinguished surgeons fully expressed.—*College and Clinical Record.*

THE statistics of suicide in the United States for the year 1890 reveal the curious fact that doctors commit suicide far more frequently than members of any other profession. Even the clergyman, who is so often required to read over his old sermons, commits suicide only half as often as the medical man.—*Med. Bulletin.*

TO THOSE WHO WEAR FALSE HAIR.—The English counsul at Canton says that eighty thousand pounds of hair have been exported from that city during the past year, and that it comes mainly from those who have died of contagious disease, mendicants and criminals.—*The Physician and Surgeon.*

BOOK REVIEWS.

THE POCKET MATERIA MEDICA AND THERAPEUTICS; A Resume of the Action and Doses of All Officinal and Non-Officinal Drugs now in Common Use. By C. Henri Leonard, A.M., M.D., Professor of Medical and Surgical Diseases of Women and Clinical Gynæcology in the Detroit College of Medicine. Cloth, 12 mo., 300 page; price, postpaid, $1.00. The Illustrated Medical Journal Company, Publishers, Detroit.

This volume, so the preface informs us, has been in preparation for the past four years. The drugs of as late introduction as 1891 are to be found in its pages. The author claims to have incorporated everything of merit, whether officinal or non-officinal, that could be found either in standard works or from many manufacturers' catalogues. The scheme embraces the Pronunciation, Officinal or Non-Officinal indication (shown by an *), Genitive case-ending, Common Name, Dose and Metric Dose. Then the Synonyms, English, French and German. If a Plant, the Part Used, Habitat, Natural Order, and Description of Plant and Flowers, with its Alkaloids if any. If a Mineral, its Chemical Symbol, Atomic Weight, looks, taste, and how found, and its peculiarities. Then the Action and Uses of the Drug, its Antagonists, Incompatibles, Synergists and Antidotes. Then follow its Officinal and Non-Officinal preparations, with their Medium and Maximum Doses, based, so far as possible, upon the last U. S. Dispensatory. Altogether, it is a handy volume for either the Physician, Student or Druggist, and will be frequently appealed to if in one's possession. It is the most complete small book on this subject now issued.

CORRESPONDENCE.

RESIGNATION OF DR. MORTON.

ST. JOSEPH, MO., May 15, 1891.

EDITOR WEEKLY MEDICAL REVIEW:—

As announced in the May number of the *Medical Herald*, my connection with the journal terminated with that issue. The many courtesies extended to me while discharging the duties of editor call now for an individual expression of my thanks to the subscribers, for the kindly interest they have manifested in the journal, to the contributors, for the brain work they have added to mine in the editorial management, and to my editorial friends of other journals, for the many personal favors shown me. Although our journalistic acquaintance is thus discontinued, I trust that it will be followed, as opportunity offers, by further friendly association.

Sincerely,

DANIEL MORTON.

NATIONAL PROHIBITION CONVENTION.

WEST NEW BRIGHTON, N. Y., May 25, 1891.

EDITOR WEEKLY MEDICAL REVIEW:—

Enclosed you will find a call for an International Medical Congress, to discuss such questions as:

What are the hereditary effects of drunkenness?

Are there any hereditary effects that follow moderate drinking?

To what diseases are inebriates more especially exposed?

Is alcohol a poison.

Is alcohol in any sense a food?

What are the proper uses of alcohol as a medicine?

Is there danger of producing the drink habit from the prescribing of alcoholic medicines?

How large a percentage of deaths may be attributed, directly or indirectly; to the use of strong drink?

Should alcoholic liquors ever be used except under the direction of a medical adviser?

The discussion of these questions by physicians who come together to exchange views and experience will be of great assistance to the cause of National temperature. Will you not help to arouse the interest of the medical fraternity by publishing the call, and referring to it in an editorial. Please call attention also to the following points:

Dr. Nathan S. Davis, of Chicago, will preside at the Congress, and will make the opening address. It will be remembered that Dr. Davis presided at the recent International Medical Congress held in Washington. It is particularly requested that from each town throughout the country, and also from each ward of every city a delegation of three physicians be appointed to attend. Clergymen, W. C. T. U., and other temperance organizations are urged to consult with the physicians in

their vicinity, and see that their neighborhoods are represented at the Congress.

Yours very respectfully,

R. S. Cheves, Secretary.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, May 30, 1891. J. C. Mulhall, M.D., Vice-President, in the chair.

Dr. Meisenbach read a paper detailing case of

Suspected Cancer of Uterus,

and presented specimens of brain, kidney, uterus, ovaries, Fallopian tube and a portion of the bladder.

Dr. Meisenbach said: This case was under the care of Dr. Treutler. On the day following the death of the patient, the speaker made a post-mortem, but was chagrined to find that the undertaker had already exercised the embalmer's art, and had injected the thoracic and abdominal arteries with his peculiar antiseptic fluid; by this the peritoneum, both parietal and intestinal, was very much altered in character; and the possible impaction of the bowel, referred to, it was impossible to demonstrate. Portions of the bladder were much constricted; even to about one-third the lumen of the portion not constricted. The tissues were indurated, and had lost their natural color; both the anatomical and pathological character, so far as color and texture were concerned, could not be well ascertained. The bowels were fairly empty, a few small scybalæ were found in the intestinal tract; otherwise there was nothing to lead one to suppose there was any obstruction whatever. This was also the case with the stomach, which, on account of the intense action of the embalming fluid, was in a condition that rendered it impossible to make a satisfactory examination of it. The brain was examined and is here presented. Upon removing the calvaria the dura was found moderately injected; and on incising the dura and lifting out the brain, the pia and arachnoid presented patches scattered over the surfaces of each, the pia especially, and along the tract of the longitudinal sinus were a number of hæmorrhagic spots, visible even after the brain has been immersed in Mueller's fluid. There were small shreds of coagulable lymph, which seemed to connect the dura and arachnoid, so that in all probability the nervous symptoms, mentioned in the report, were due to inflammatory action in the meninges; possibly a lepto-meningitis.

This same condition extended not alone to the periphery of the vertex of the brain, but also over the base. There seemed to be a general thickened condition of the pia and arachnoid. When the abdomen was opened, the peritoneum presented the appearance of tanned leather, due to the action of the embalming fluid; this condition excluded an examination of that portion of the abdominal cavity. The organs situated retro-peritoneally, especially the kidneys, when removed, presented a very beautiful exemplification of pyonephrosis. There were pockets filled with pus, and on the mucous surface of the pelvis of the kidney were eroded and irregular patches. Structural changes in the kidney were also very apparent. The cortex was much narrowed and constricted, and the pelves of the kidneys were changed in character; and withal the symptoms of surgical kidneys were extensive, as if long continued suppuration had taken place. The bladder was also implicated. Although immersed in carbolic acid water and alcohol, the changes in the mucous surface of the bladder are very apparent. There are seen irregular, eroded, denuded patches, as well as those hæmorrhagic, between them, showing there has been an atrophy of the mucous membrane; and in consequence of that, an eroding and corroding process; so that we have minute vessels opened, and hæmorrhage taking place in the submucous structure of the bladder. The organ of the greatest interest is the uterus, in respect to its condition, and that of its appendages. In the report it is very clearly stated that a very prominent gynæcologist of this city made the statement that the lady was suffering from cancer of the uterus; yet the uterus was found to be in a state of senile atrophy; and no indications anywhere about the uterus or its appendages of infiltration of a cancerous or any other nature. The endometrium is much congested; a section through the longitudinal axis being made, a quantity of grumous blood was found on the surface, much changed; this change extended not alone through the mucous membrane, but the muscular and parenchymatous structure also, constituting chronic endometritis. The left ovary was found in a state of cystic degeneration; the parenchymata of the ovary having been completely absorbed, and nothing left of the Graafian follicles; whilst on the right side the ovary was completely atrophied, due to the senile changes that had pervaded the entire system.

Dr. Fry inquired the immediate cause of death.

Dr. Meisenbach thought it was due to the condition of the brain—the sequelæ of inflammatory action—lepto meningitis.

Dr. Fry rejoined he had heard it suggested that possibly death was due to uræmia; but no marked evidences of uræmic poisoning were present; the disturbance in the meninges was sufficient to have produced death, in a person debilitated, as this person was, more especially when other organic diseases were co-existent; the several attacks of acute pain that she had, suggested organic disease similar to that of those who had been seized with the epidemic disease and had succumbed to it, as the immediate cause of death. The speaker had seen several cases where he was perfectly satisfied that the patients had a meningitis, but all of these were feeble patients, who had suffered previously with some other organic complication.

Dr. Meisenbach continued. Clinically and patho-

logically speaking, it is difficult, at times, to differentiate between affections of the kidneys and of the bladder. As in this case, a patient may complain of indefinite pain along the tract of the ureter in the region of the kidney, and at the same time present symptoms of cystitis, and pus epithelia being present in the urine. In such cases it is difficult to make a fine distinction, and determine which preponderates. The only method would be to differentiate the location of the pain and uneasiness. If a patient complains for a long time of tenesmus during or after urinating, and of extended pain along the tract of the ureter on either side, and located in one of the lumbar regions, we are justified in assuming that a pyelitis or that a suppurative condition of the kidney itself is present. The primary condition may be localized in the bladder; or it may be in the kidney; so, clinically, we may sometimes be in doubt. A very fine distinction was made by Prof. Pfister, of Augusta Hospital, in Germany, in which a female patient complained of symptoms similar to those found in this case; namely, there was pus in the urine, pain in the region of the kidney, and symptoms that pointed to pyelitis. The speaker saw him empty the bladder, wash it out with a mild salycilic solution; then introduce a catheter into the bladder, and while the bladder was still empty, and free from any possible contamination by pus that had been secreted by its coats, he produced bi-manual pressure upon the kidney, especially on the region of the pelvis, and in that way demonstrated a flow of pus through the cavity. That was a very unique case. Such a diagnosis cannot very frequently be made.

The diagnosis of cancer of the uterus is a mistake very readily made; and possibly the opinion was expressed when the diagnosis of uterine disease, especially of cancerous nature, was not as readily determined as at the present day. The gentleman who made that diagnosis of cancer, probably predicated it upon a microscopical examination. It is doubted, at the present time, whether in the initiatory stage of cancer of the uterus, it is possible to make a correct diagnosis. The speaker sympathized with that view, for the reason that the elements which enter into a cancerous affection may be so incipient and so sparsely developed in the tissues, that in the small portions taken away for microscopical examination, the characteristics may have eluded the search of the examiner; and, instead of making many sections, may content himself with making a few. The hæmorrhage, if it takes place from the uterus, is readily explained by the condition in which we find the endometrium, namely, endometritis, the parts being very much congested and filled with blood.

Fractured Patella—Wire Suture—Perfect Result.

Dr. Lutz said.—Some time ago he had the pleasure of reading notes of cases of fracture of the patella, and exhibiting patients; notably a man who at that time was 55 years of age, and upon whom the speaker had operated in the previous February, for fracture of the patella. His history was, that on the first of January before he had fallen upon a slippery sidewalk, and when speaker visited him, he had synovitis of the knee joint, which was treated by aspiration and subsequently immobilization; he recovered so as to be able to walk about; the weather being again of a kind that makes sidewalks slippery, he fell again, and fractured the patella of the same leg. The mode of treatment suggested was wiring the patella, to which he submitted. A perfect result was attained, because the motion of the joint was perfect, and union was secured. He had no trouble with the knee after he recovered from the operation. He died about a month ago of carcinoma of the pylorus, with a typical distension of the stomach; the stomach retained a large quantity of fluid, and for its removal, it was necessary to introduce a stomach tube, almost daily. The specimen presented is illustrative of the practice now sanctioned by many operators, notably by Dr. Phelps, of New York, who reported in the last November number of the *N. Y. Med. Jour.*, quite a series of cases, in which the operation was done primarily with very good results. It is well known that the chief difficulty, in securing an osseous union of the segments of the patella, is the interposition of the popliteal aponeurosis—the aponeurosis which formed by the tendon of the quadriceps extensor passing over the anterior portion of the patella, which is ruptured, and then folds down over the fractured surface, especially over the upper fragment; and becomes so firmly welded to the broken surface, that it is necessary in doing the operation, to pick it off, as it were, with the forceps. Macewen demonstrated this fact many years ago, and although we obtain very good results from the so-called fibrous union—the formation of a tendon between the two fragments—still the limb suffers in consequence of the absence of osseous union. The gait may be almost perfect on level ground, but the patient experiences difficulty when he attempts to ascend a flight of stairs, the proper and graceful locomotion of the individual is interfered with, because of the absence of osseous union. This specimen illustrates the manner in which ordinarily the silver wire is introduced, and also the complete osseous union obtained in a case of this nature. The wire was twisted and pressed down into the sulcus between the upper and lower fragments; in this instance, it extended internally on the articular surface of the patella into the joint itself. It, however, never interfered with locomotion. Some years ago it was considered quite a hazardous procedure to lay open the knee joint—to convert a simple fracture into a compound fracture. By the methods now employed, operating aseptically, possibly with antiseptic precautions, the opening of the knee-joint, or the conversion of a simple into a compound fracture, is not held to be the same serious procedure which it was formerly considered to be, and the results obtained, both in the treatment of compound fractures and also in the operations about the joints, certainly justify the position now held by sur-

geons ordinarily, and corroborated especially by the statistics given by Dr. Phelps. They have incontestibly secured for this operation a permanent position in the surgical procedures of to-day.

In the discussion which followed the reading of Dr. Phelps' paper, as also in a previous discussion, many prominent surgeons in New York held it was not a justifiable operation; but, after all, the results obtained speak much more eloquently than any verbal argument —oftentimes only theoretical—which can be urged in favor of the operation. The speaker had performed the operation ten times, and in all good results were obtained. He had performed the operation primarily, as has been suggested, even before the absorption of the blood—simply clearing out the joint cavity, and performing the operation three or four days after the receipt of the injury. This specimen is presented because of its rarity, and the result of an operation, which, in the minds of many, is still *sub judice.*

Dr. French inquired the depth of the suture; whether it is sufficient to approximate the surfaces, without passing through the entire thickness of the bone. He had been fearful of doing otherwise than penetrating the entire thickness of the bone, because of the strain required; much force is ordinarily requisite to approximate the fractured surfaces; the force of the quadriceps extensor, drawing the upper fragment upward, with considerable force, must be counteracted by drawing it away; and he had been fearful that the wire might break through, if the entire thickness of the bone was not embraced.

Dr. Meisenbach inquired if extension, flexion, and the movements that are common to the normal joint, were restored.

Dr. Lutz replied, in answering that question, of course he was put upon his individual evidence, but in no case, in which he had done the operation and which he had watched, and he had followed as many as he could, was there stiffness of the joint. This man, for example, could bend the knee of the right side as much as that of the left. Some cases he had not been able to follow; but he could possibly put his hand on five or six, and these patients invariably had a better joint when discharged, than in the cases treated formerly, after the mode of Dr. Hamilton. He ventured to say that a nearer approach to a physiological joint has been obtained than had obtained in the other instances.

Dr. Meisenbach rejoined. The position that a great many surgeons take is this: If we cannot guarantee a bony union, even when the operation suggested is performed, why should the patient be subjected to this jeopardy—why cause this risk? Although the amount of risk be small, in proportion to the number of cases operated on, under the present aseptic precautions, there is still a risk.

Metzger, of Amsterdam, has instituted a procedure, which he had the pleasure of seeing him pursue in the operation, in a number of cases. The position taken by him, and followed by many of his disciples, is this: that it is not of so much consequence, that the bone be restored to continuity, as that the muscles of the thigh, and especially the quadriceps extensor, should be kept up in its physiological condition and tone. They claim that the period of rest and confinement causes the muscles to lose their tone; therefore the patient loses the utility of the limb; and that to this alone are due the untoward results of the fracture of the patella; and upon this basis he instituted a plan of treatment which he calls massage of the limb. Within four days after the receipt of the injury, having placed his patient upon his back and upon a posterior splint, he begins massage of the limb once or twice a day, gradually rubbing the fragments and massaging the parts above. He does this two or three weeks, when the patient is gradually allowed to get up. Ligamentous union occurs in due time, one, two, three or even four inches in length. The speaker saw a number of patients that he had treated in that way. One patient had passed a period of three years with an extension between the patellar fragments, at least four inches in length; and yet, that patient was able to walk, run and jump so naturally that no one would suspect that there had been any injury to the leg. Now the question arises, if this is possible by Metzger's method, why should an operation be performed which must be more or less dangerous to the patient. It is true we work aseptically and anntiseptically, but it is impossible always to keep the knee aseptic or antiseptic; and accidents may occur to the best of operators who have performed operations on the knee-joint. The speaker felt if for a patient, a fair joint can be secured without operative interference—something that would approximate the normal joint, he would accept that, and believed his patient would be better off without the operation.

Dr. Johnston inquired how long the patient lived upon whom the operation was performed.

Dr. Lutz.—Nearly four years.

Microscopical Specimens.

Dr. Riesmeyer presented some microscopicel sections and said:

The first section was taken from a specimen which he presented to the society several months ago. It is from a parametritic abscess. The abscess was located within the layers of the broad ligament, implicating the ovary and tube; the tube, ovary and part of the broad ligament were removed. At that time a member of the society took the position that it was not a parametritic abscess, but a pus tube; probably because he had not thoroughly examined the tube. Sections of the tube satisfactorily demonstrate that there could not be any circulation in the tube, the epithelium being absolutely intact, there being only a papillomatous proliferation of the mucous membrane of the tube. The tube, however, is very much thickened by inflammation and new connective tissue, as the speaker supposed at that time, even before he made a microscopical examination. Besides a large amount of connective tissue, there are a

great number of vessels and some round cells. The main point of interest, however, is the condition of the lumen of the tube, the epithelial cells being absolutely intact, and no connection anywhere of the tube with the abscess cavity. The patient is doing well, has increased in weight, and is, to all intents and purposes, a well woman.

The second specimen is from an epithelioma of the lower lip, removed from a young man, æt. 21. The peculiarity of it is the arrangement of the epithelial cells. They are formed into plexuses; it is a plexiform epthelioma, which is very rare at the age of this patient.

The third specimen is an epithelioma of the nipple, removed from a woman, æt. 69. Epithelioma of this organ is also rare, and on this account it is presented. It was at first a question whether the lesion was an epithelioma or a chronic ulcer; there being no plain proliferation of epithelium upon it, in the subcutaneous tissue, nor any beds of epithelium; but the epithelium is seen penetrating the lymphatic spaces in the same way as in the other specimens, where it forms a network. The patient is otherwise perfectly well; has never been sick; nor is there history of tubercular trouble or syphilis.

Dr. French desired the doctor to explain how he arrived at the conclusion that it was a papillomatous growth? It appears to my uneducated eye to be normal epithelium.

Dr. Riesmeyer replied, the gentleman is perfectly right; the epithelium is perfectly normal; but all the tubes that the speaker had examined had as many folds as are seen in this one; here are at least five or six times as many as are in the normal tube. He had never seen in the mucous membrane so many folds as there are here; blenorrhœa of the eye presents a very similar appearance. While it cannot be absolutely declared that it is pathological, he thought an inflammatory process had caused this appearance. Sections were made from specimens taken from three different places, in all these folds were found.

AMERICAN MEDICAL ASSOCIATION.

Obstetrics and Gynæcology.

REPORTED BY E. S. M'KEE, M D.

The Uses of Cocaine in Gynæcological Surgery.

Wm. H. Humiston, M.D., Cleveland, O.—In dilating and curetting the method of use is as follows: Ten minutes before using give a table spoonful of whiskey or brandy. Place patient in left lateral position and with Sim's speculum expose the cervix, steady the uterus with a tenaculum inserted in anterior lip. Take a hypodermic syringe with fine needle with a 4% solution of cocaine, which has 2 minims of pure phenol in each half ounce of solution, and inject 5 minims into the posterior lip, wait two minutes, then secure a firm hold with bullet forceps which will be painless. Proceed to inject in several portions of the cervical canal an amount equal to about 20 minims. Dilatation is now commenced with the graduated hard rubber dilators until the cervix is sufficiently dilated to admit the intra uterine syringe, when 10 minims of a 10% solution is inserted into the uterine cavity. Continue at once with the dilating of the cervix until completed to the desired extent and then thoroughly curette the entire uterine cavity.

The operation of trachelorrhaphy may be performed with the use of cocaine as a painless operation. Inject the angle or a wedge-shaped piece that must come away, more than one-half drachm of a 4% solution is rarely required.

Restoration of the perineum requires from 30 to 40 minims of a 4% solution and when the split flap method is adopted, one puncture of the hypodermic needle in the median line anæsthetizes the whole field of operation. Twice the author has dilated the urethra for fissure and irritable carunculæ with but slight suffering.

The use of cocaine does away with the frequent and prolonged nausea and vomiting which occurs after chloroform or ether, and which frequently places gynæcological operations in jeopardy.

Treatment of Accidental Abortion.

Bedford Brown, M.D., Alexandria, Va.—The author first gives hypodermically $^1/_4$ gr. morphia, $^1/_{60}$ gr. atropia and if much hæmorrhage with depression $^1/_{60}$ gr. strychnia and 20 minims fluid ex. ergot. Then the vagina is douched with hot water containing permangate of potash. If hæmorrhage continues, a pint of hot water containing an ounce or more of alum is injected. If hæmorrhage is not arrested by these means and life is endangered, the patient is placed in lithothotomy position, a bivalve speculum is inserted in the vagina the roof around the os uteri packed with pledge of iodoform gauze with cords attached, remains filled with absorbent cotton and a soft catheter inserted in the urethra. These conditions usually complete the expulsion of both fœtus and secundines into the vagina. If the placenta is retained ergot is of some value, but removal of the secundines or tampon is the final resort. The fingers surpass hooks, forceps or curettes. The placenta and its relations are the causes of more trouble and anxiety than all other questions, The resultant hæmorrhage, sepsis, local inflammations, organic changes, subinvolutions and septicæmia arising from its retention render its early and thorough removal a matter of first importance. The uterine contractions of abortion are spasmodic and of neurotic origin and are best allayed by 30 grains of chloral given per rectum, 20 grains of bromide of lithia with 1 drachm of fluid extract of viburnum prunifolium every 2 or 3 hours. This with entire rest of mind and body in the recumbent position are the most effectual preventives. In managing the retained placenta by the expectant plan, the use

of instruments or use of fingers, the author gives the decided preference to the latter and has found that anesthesia greatly facilitates these operations.

The Pathology and Treatment of Chronic Ovaritis.

Alex. J. C. Skene, M.D.—The pathology of ovaritis is characterized by changes of structure brought about chiefly by areolar hyperplasia first, then by atrophy of the normal tissues, and finally by a condition of cirrhosis. Deranged innervation is the first variation from the normal towards the pathological. This ovarian hyperæmia may subside and complete recovery follow. The morbid appearances which enable a surgeon to determine when to remove an ovary are these:

Follicles which from their number, size and dark color are evidently diseased should be removed. Enlargement, congestion and softening from œdema, and patches of induration with irregular distention of the vessels and the evidence of small blood clots are conditions favoring removal. Cirrhosis, indicated by abnormal size, induration and rough surface, when found in a young subject can be easily passed upon. But when in a case near or after the menopause this appearance of the ovary does not decide with certainty whether there is cirrhosis or simply senile atrophic degeneration.

Dysmenorrhœa is often present and in some the menses are retarded and scanty, in others too frequent and profuse. The effect upon the nervous system is marked. Pronounced depression and irritability, epilepsy and mental disorders result from chronic ovaritis.

The cause thich most frequently obtains is imperfect menstruation. The strumous diathesis predisposes, and inherited or acquired syphilis likewise.

Treatment.—The removal of the ovaries has been regarded as the most prompt and effectual treatment of chronic ovaritis, but the facts are that many of the cases are not improved, even those who are nearing the menopause sometimes suffer from nervous disturbances which follow an abrupt menopause and have to endure pelvic pain. The assured cases are those operated on at or near the menopause; those improved are generally those suffering from complicating affections, as dysmenorrhœa, while the unimproved are the younger subjects in whom the disease was uncomplicated. The author advocated the removal of the ovary only when there are structural changes from inflammation and prolapsus at the same time. Prolapsus can be relieved by fixing the ovary to the upper border of the broad ligament. The indications for general treatment are to lessen the blood supply and relieve pain by correcting the deranged innervation. This demands rest in the early stages in the recumbent position. The condition of the digestive organs should be carefully watched. By keeeping up a free elimination by the bowels and kidneys much benefit is obtained to relieve the pain and lessen the hyperæmia the bromide of sodium 20-30 grains, and fluid extract of hydrastis canadensis 10-20 minims, given in combination three times per day are efficacious. Much larger doses of bromide are required in some cases and it fails entirely in others, 10 grains of salicylate of soda and 5 of antipyrine given between meals and in the night answers for some, while others do better on full doses of aromatic spirits of ammonia, camphor and chloric ether, with small doses of Cannabis Indica. Direct or local treatment should be adapted to the social state of the patient. Local treatment is often injurious in the married, any disease or displacement of the uterus which co-exists should be managed in the usual way. A small tampon of cotton or well saturated with equal parts of the tincture of belladonna and glycerine applied behind the cervix uteri for forty-eight hours, and after its removal, a hot douche is used during the first days of treatment, followed by applications of tincture of iodine. Recently the sulph ichthyolate of ammonium, 5 parts in 95 of glycerine applied in the same way as the belladonna, has given good results. Constitutional treatment should be modified with improvement and patience and careful watching are most essential to avoid relapse in this long and tedious disease.

Minor Uterine Surgery.

J. M. Baldy, M.D., Philadelphia, Pa.—The major uterine and pelvic surgery of the present day has almost overshadowed the minor operations of which the student in gynæcology formerly heard so much. Unfortunately this is not true as regards the majority of general practitioners, the old teachings and old books still have too much influence. The one great fact in this connection is, that most of the troubles which were once considered situate in the uterus are not in that organ at all, hence it is improper and dangerous to direct treatment toward a healthy organ when the trouble is in the neighboring tissues, probably of an inflammatory nature. In a large proportion of the remaining cases of so-called uterine disease, the womb is undoubtedly affected, but the lesions are secondary to lesions in the uterine appendages. This leaves but a comparatively small number of eases of pure uterine disease, as metritis, endometritis, pathological displacements, which are the exception uncomplicated by other and more serious troubles.

The uterine sound is of value very seldom. In most instances where it is employed a degree of manual dexterity will produce more satisfactory results without the danger of the instrument in causing traumatism or carrying septic material into the uterine cavity.

Dilatation is an operation which has been much abused. Inflammatory conditions of the appendages sometimes follow incomplete dilatation or its unskilled use. On the other hand severe dysmenorrhœa is sometimes relieved and permanently cured and pregnancy follows dilatation in not a small proportion of cases. The dilator is an important instrument and accidents following its use must be attributed to a wrong diagnosis or faulty use of the instrument.

Intra-uterine medication has a limited field, but it is

as rational to expect results from local applications to the mucous membrane of the uterus as the nose or throat and in connection with other means much good may be derived where a proper diagnosis has been made.

The curette, in properly selected cases, is invaluable. For affections of the endometrium following labor or of a fungoid character it is exceedingly useful. In removal of retained clots, etc., in the puerperium the finger will be found more certain.

Operations on the Cervix.—The splitting up of the cervix for dysmenorrhœa and sterility has fallen into deserved disuse and Emmet's operation for closure of lacerated cervix should meet the same fate. The only excuse for many such operations is the fear of subsequent cancer. Most women have laceration of the cervix of more or less degree. If the lips are thickened, everted and eroded they will need treatment. Often simple scarification followed by application of iodine and glycerine tampons will reduce this condition and leave a clean healthy tear. If the lips cannot be brought into a healthy state or if the uterus be subinvoluted and the endometrium diseased the case may be resolved into an operative one, but even here a trial with electricity may produce a cure. It is very easy to relight a pelvic inflammation while repairing a cervix, and this result often follows operation.

The field of minor uterine surgery is limited and becomes more and more narrow as diagnostic resources increase, but it is decidedly to be approved within the limits to which it is applicable.

The Treatment of Abortion,

was the subject of a very able paper before the Cincinnati Obstetrical Society by Dr. C. L. Bonnifield, of Cincinnati. The doctor dealt of the treatment in a wise and conservative manner. Referring to the various remedies recent and ancient he cited a remarkable case treated by Dr. E. S. McKee, of Cincinnati, with Dioviburnia made by the Dios Chemical Company, of St. Louis. In the discussion which followed Dr. McKee said that he had had remarkable success in the treatment of threatened abortion by Dioviburnia in the case cited by the essayist and in many other cases. The question of the comparative value of the placenta forceps and the fingers was discussed quite fully. Dr. T. A. Reamy advocated the use of the forceps and showed a pair of his own invention. The remainder of the Society almost to a man preferred the fingers to the use of any instrument in the removal of the placenta and membranes.

Physicians and other readers of the Review should not fail to examine its advertising pages, where much that may prove of interest will be found.

SOCIETY NEWS.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

New Hampshire Medical Society (centennial), Concord, June 15 and 16.

Colorado State Medical Society, Denver, June 16 and 17.

Ohio State Medical Society, Put-in Bay, June 17, 18 and 19.

Minnesota State Medical Society, Minneapolis, June 18, 19 and 20.

Medical Society of New Jersey, Long Branch, June 23 and 24.

Vermont State Medical Society, Burlington, October 15 and 16.

Mississippi Valley Medical Association, St. Louis, October 14, 15 and 16.

Tri State Medical Association of Tennessee, Alabama and Georgia, Chattanooga, October (date to be fixed).

Medical Society of Virginia, Lynchburg, October 27, 28 and 29 (subject to change).

New York State Medical Association, New York, October 28, 29 and 30.

Louisiana State Medical Society (place and date to be determined).

National Associations.

American Gynæcological Society, Washington, September 15, 16 and 17.

American Orthopædic Association, Washington, September 15, 16 and 17.

American Association of Andrology and Syphilology, Washington, September 22, 23 and 24.

Congress of American Physicians and Surgeons, Washington, September 22, 23, 24 and 25; in connection with this congress will be held the meetings of the American Climatological Association, American Otological Society, American Ophthalmological Society, and American Neurological Association.

American Dermatological Association, Washington, September 22, 23, 24 and 25.

American Laryngological Association, Washington, September 23, 24 and 25.

Southern Surgical and Gynæcological Association, Richmond, November 10, 11 and 12.

NEW HAMPSHIRE MEDICAL SOCIETY.

Members of the Society and the profession are cordially invited to be present at the annual and centennial meetings of this association, which will be held in Concord, Monday, Tuesday and Wednesday, June 15, 16 and 17, 1891, in the hall of the G. A. R., 15 Warren street, commencing at 11 o'clock, A.M., Monday, June 15. Centennial Exercises, Tuesday, June 16, and the election of officers and business meeting, June 17.

OFFICERS OF THE SOCIETY.

President, Lyman B. How, M.D., Manchester.
Vice-President, Moses W. Russell, M.D,, Concord.
Treasurer, Daniel S. Adams, M.D., Manchester.
Secretary, Granville P. Conn, M.D., Concord.
Anniversary Chairman, William T. Smith, M.D., Hanover.

Executive Committee, Charles R Walker, M.D., Concord; George D. Towne, M.D., Manchester; John R. Kimball, M.D., Suncook.

Committee of Arrangements, Irving A. Watson, M. D., Concord; Thomas Hiland, M.D., Concord; George Cook, M.D., Concord; George M. Kimball, M.D., Concord.

Chaplain, Rt. Rev. W. W. Niles, D.D., Concord.
Reporter, A. J. Shurtleff, Esq., Concord.

PROGRAMME FOR MONDAY, JUNE 15, 1891, 11 O'CLOCK A.M.

1. Prayer by the Chaplain, Rt. Rev. W. W. Niles, D. D., Concord.
2. Reading the Records of the last meeting.
3. Report of the Committee of Arrangements, by the Chairman, George Cook, M.D., Concord.
4. Report of the Executive Committee, by the Chairman, Chas. R. Walker, M.D., Concord.
5. Appointment of the usual committees, by the President.
6. Medical Papers and Communications.
   a. Dissertation: "On the Treatment of Epithelioma by Magnesium Sulphas." By E. E. Graves, M.D., Boscawen.
   Discussion opened by C. R. Walker, M.D., Concord.
   b. Oration: "Four Medical Men of New Hampshire."
   c. Report on Gynæcology. By Ellen A. Wallace, M.D., Manchester.
   Discussion opened by S. C. Whittier, M.D., Ports mouth.
   d. Oration: "Looking Backward." By A. P. Richardson, M.D., Walpole.
   e. Dissertation: "On the Internal Use of Germicides." By J. J. Berry, M.D., Portsmouth.
   Discussion opened by G. P. Conn, M.D., Concord.
   f. Essay: "Medical Education in New Hampshire." By Prof. C. P. Frost, Hanover.
7. N. B.—The society will take a recess about 1 P.M., for about two hours, that the members may have time for a lunch, and to visit the City Hospital, the Asylum, and the Exhibit in Phenix Hall.
8. There will be another adjournment at about 6 P.M.
9. The Council will meet at 7 P.M.
10. From 8:30 to 11:00 P.M., there will be a reception at the residence of Dr. Wallace-Russell, to members, their ladies, and the guests of the Society.

CENTENNIAL PROGRAMME, TUESDAY, JUNE 16, MORNING SESSION.

In order that new members may enjoy the same privileges as other Fellows of the Society, there will be a morning session at 8:30 A M., to hear the Report of the Council, elect new members, and to introduce visiting delegations. (New members please take notice and be present at the roll call.) The remainder of the day will be devoted to the Centennial Exercises.

EXCURSION.

At 10:30 A.M., sharp (accommodation train from the south arrives at 10:25), the members of the Society, ladies, and invited guests will take a special train for Alton Bay, passing over the Lake Shore Division of the Concord & Montreal Railroad, which is noted for its fine views of Lake Winnipiseogee. At Alton Bay the steamer Lady of the Lake will be found, and as soon as the passengers can be transferred, the boat will leave for a two hours' sail over the Lake, landing at the Weirs about 2 P.M., when the special train will take the members of the Association back to Concord in season for the afternoon session.

A collation will be served on the boat.

AFTERNOON SESSION, 3:30.

Reading of papers resumed.

1. "New Hampshire Surgeons and Surgery of the Past Century. By John W. Parsons, M.D., Portsmouth.
2. "History of Medicine During the Colonial Period." By Irving A. Watson, M.D., Concord.
3. President's Address.

EVENING SESSION.

Anniversary Dinner will be served in the New Eagle hotel at 7 P.M. All are invited, and tickets for the members to the dinner and to the excursion will be given out from the Treasurer's table, on the payment of the annual dues. Guests and honorary and retired members will receive tickets from the Secretary. The Anniversary Chairman, Dr. Wm. T. Smith, of Hanover, will preside.

PROGRAMME FOR WEDNESDAY, JUNE 17. SOCIETY WILL CONVENE AT 8:30 A.M.

1. To consider the Report of the Council.
2. Report of delegates to Dartmouth Medical College.
3. Reports of delegates to other societies.
4. Reports of District Societies.
5. Treasurer's and Auditor's Reports.
6. Reports on Necrology. By Dr. J. J. Berry, Portsmouth.
7. 10:30 A.M. Election of officers. Report of Executive Committee, and general business.
8. Introduction of new officers.
9. Adjournment.

G. P. CONN, M.D., Secretary.

Concord, N. H., May 28, 1891.

MEDICAL MEETINGS.

The St. Louis Medical Society holds its meetings every Saturday evening at 8 o'clock P. M., to which medical men are cordially invited.

GUHMAN, M.D., Rec. Secretary. L. BREMER, M.D. President for 1891.

IOWA MEDICAL SOCIETY.

The Iowa Medical Society elected the following officers: President, George F. Jenkins, Keokuk; First Vice-President, C. M. Hobby, Iowa City; Second Vice-President, B. B. Charlton, Clear Lake; Secretary, C. A. Darnell, West Union; Assistant Secretary, S. W. Cokenower, Des Moines.

CHICAGO MEDICAL SOCIETY.

The Chicago Medical Society elected officers as follows: President, Dr. D. R Brower; First Vice-President, Dr. F. E. Waxham; Second Vice-President, Dr. R. D. McArthur; Secretary, Dr. J. C. Hoag; Treasurer, Dr. H. N. Moyer; Neurologist, Dr. L. A. Barlow; members of committee on publication, Dr. W. T. Thackery, Dr. Frank Billings; member on committee on members, Dr. J. H. Stowell.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The Mississippi Valley Medical Association will hold its seventeenth annual session at St. Louis, Wednesday Thursday and Friday, October 14, 15 and 16, 1891. A large attendance, a valuable programme and a good time are expected. The members of the medical profession are respectfully invited to attend. Officers: President, C. H. Hughes, M.D., St. Louis; Secretary, E. S. McKee, M.D., Cincinnati; Chairman Committee of Arrangements, I. N. Love, M.D., St. Louis.

AMERICAN ACADEMY OF MEDICINE.

This organization held its sixteenth annual meeting at the Arlington House, Washington, D. C., May 2, the attendance was the largest present during the last seven years. Lewis W. Steiner, M.D., of Baltimore, Md., in his paper on medical education holds the following language, viz.: The routine of work must be adapted to the average man. The brilliant scholarly mind will compass it easily and will be able to supplement it with other important additions to his preparation for subsequent professional duty; while there may be some who cannot keep abreast of the lower requirements, and who must necessarily drop out of the struggle. This unequal contest must be expected and should the mental capacity in any case be too small to compass the college curriculum, what kind of addition to the medical profession would its owner make? The present need is not that of mere numbers. Quality and not quantity is looked for.

Officers for the ensuing year are: President, Phineas S. Conner, Cincinnati, Ohio; Vice Presidents, R. Lowry Sebbett, Carlisle, Pa.; Geo. J. Fisher, Sing Sing, N. Y., Henry M. Lymann, Chicago, Ill., Louis S. McMurtry, Louisville, Ky.; Secretary, Charles McEntire, Easton, Pa.; Treasurer; J. Cheston, Morris, Pa. Time and place of next meeting at determination of the council.

SELECTIONS.

THE DEGENERATIVE DISEASES OF THE SPINAL CORD, WITH A DESCRIPTION OF A NEW TYPE.

This is the subject of a paper by Dr. C. L. Dana. He said that almost all the organic diseases of the spinal cord which the physician had to treat belong to one of two great classes, the destructive and the inflammatory. There might be some doubt felt as to the class in which the case he was to report should be placed. He, therefore, preceded the history of his case with some remarks upon the pathology of the inflammatory and degenerative processes which affected the cord.

Softening and degeneration of the cord were both processes that had to do essentially with the nerve parenchyma, the cells and fibers. They are always associated with a good deal of vascular activity and connective tissue proliferation, resulting in cicatrices and scleroses. The results of the bacteriological work had given us a wider grouping of these diseases and more certain knowledge of the nature of inflammation.

According to modern doctrine inflammation was a reaction of the organism to an irritant; this irritant was practically always a microbic poison. Without a microbe there could be no inflammation. Again, inflammation was an attempt to eliminate the poison or irritant, and then to repair its ravages. Still further, inflammation had to do with blood vessels and connective tissue only.

Many cases of so called chronic myelitis were cases of injury, either the result of an acute destructive process, or due to a nutritive disturbance that was of vascular origin—such as obliterating arteritis. Finally, it seemed to the author that the terms transverse myelitis, compression myelitis and acute myelitis might as well be dropped from ordinary use, unless there was distinct evidence of septic infection. The true anatomical tests of inflammation should be based upon studies of true myelitis produced by the introduction of pyogenic organisms.

Turning again to the subject of the degenerative dis-

orders of the cord, primary degenerations were the ones dealt with. They were, so far as now known, locomotor ataxia, lateral sclerosis, the combined sclerosis, multiple sclerosis, periependymal sclerosis and the progressive muscular atrophies, including amyotrophic lateral sclerosis.

The primary degenerative diseases of the spinal cord had all a certain degree of kinship. The course of all was uniformly progressive, and one not very infrequently complicated another. The sharpest distinctions were found between those affecting the gray matter and those affecting the white matter. As a rule, the gray matter was not much involved, except secondarily and late. The distinction of the disease under consideration from other degenerative diseases and the placing of it in a separate group was justified by the following observations:

Ætiologically, it was peculiar in occurring so often in women and at comparatively advanced periods of life. Syphilis did not appear often to be a factor in its cause. Symptomologically, it was distinguished by its almost subacute course, by the presence of paræsthesia and often of anæsthesia, with, as a rule, spastic symptoms and finally paraplegia. Pain also was not common. Ataxic paraplegia, on the other hand, ran a very chronic course, anæsthesia was quite rare and paraplegia came late. Anatomically, it was peculiar in the fact that the degenerative processes were rapid and accompanied with a peculiar collateral or terminal softening. The lesion was also less diffuse than in ataxic paraplegia and involved the root-zones of the posterior column, and the posterior columns generally, more than in the allied disease. Its distinction from locomotor ataxia with secondary lateral sclerosis was in every way most marked. The history of a case was related.

The patient was a woman, æt. 44, who, on her admission into the hospital, could barely walk with assistance. The legs and thighs were considerably wasted, the left more than the right. They were slightly drawn up and she suffered at times from painful contractions in them. The knee-jerk and the superficial reflexes were abolished. There was no cutaneous anæsthesia. She had some disturbance of the bladder. Her bowels were usually constipated, but at times under nervous excitement she had an obstinate diarrhœa. The arms were not much affected, though they were weak. She was at times delirious and had delusions. Vision was not affected. She gradually grew weaker and after six weeks died. At the post-mortem examination the brain appeared normal, as did also the dura of the spinal canal. On opening it, an extensive softening was apparent in the lower dorsal region. Aside from the local disturbances, there were no gross evidences of disease. Microscopic examination of sections of the cord showed the most active and recent process in the lower dorsal region posteriorly. Here the cord was softened by a process necrotic in nature, which was confined externally by the thickened meninges and internally by a pretty sharply defined wall of healthy cord tissue. At the level of the tenth dorsal vertebra this process had extended farther anteriorly, until it had nearly cut the cord in two. The softened area in some sections was filled with detritus of nervous tissue, and enlarged blood-vessels were seen near the edge. On the outside there was an exudation of lymph. Besides this there was a degenerative sclerosis of the lateral and posterior columns throughout the spinal cord. The process in the lateral columns was confined chiefly to the pyramidal tracts, but in the cervical region it extended forward and involved the cerebellar and the ascending lateral tracts. The posterior columns showed a slight focus of beginning softening in the lower cervical region, and in the lateral columns the degenerative process seemed rather subacute.

It was not a hard sclerosis. The spinal nerve roots were not affected, except the posterior roots in the lumbar region. The morbid process, on the whole, was apparently a subacute systemic degeneration with a terminal focal softening. Associated with the last stage was a local reaction inflammation with some lymph exudation. The vessels of the cord showed no marked degree of degeneration, and the morbid process could not be ascribed to the blocking up and obliteration. It seemed to be rather a primary and rapid systemic degeneration which was cut short by the focal softening, thus causing paraplegia and death.

Pathologically, then, the principal characteristic of this case was its rapid course, its primary character, its systemic disturbance and the terminal softening. The brain was carefully examined and showed no morbid change.—*N. Y. Med. Jour.*

A NEW TREATMENT OF CHRONIC TRACHOMA.

Johnson (*Arch. of Ophthalmology*, xix, 2 and 3) desscribes the following operation: The patient must be completely anæsthetized, and the upper lid everted over the end of a vulcanite spatula, and the conjunctiva is kept tightly stretched over it by means of a double hook. These two instruments must be held firmly between the finger and thumb of the left hand, while the three-bladed scalpel, or "sillonneur," is taken in the right, and the movable guard adjusted to a distance of two, three, or four millimetres from the tip, according to the looseness of the conjunctiva, the œdema of the papillæ, and the general appearance of the lid. In other words, the more succulent the mucosa or the larger and thicker the papillæ, and the more swollen and congested the parts generally, the deeper must be the incision. The incisions are best made parallel to the edge of the lid in a gentle curve, the first incision being made close to the edge and the others following in regular succession toward the retro-tarsal fold. About fifty small tufts of absorbent cotton wool, previously dipped in an aqueous solution of boric acid or hydronaphthol (1 to 1,100), and then squeezed nearly dry, should be used to rapidly mop up the blood in the track of the "sillon-

neur." Having made a complete cut from angle to angle with the "sillonneur," the next incision must be made in the track of the first—that is, the first blade of the sillonneur must run in the groove made by the third blade of the previous cut. The cuts must be made by a finger and not by hand motion, otherwise the cuts will not reach the farther side of the lid. After several cuts have been made in this way, the hook must be released and reinserted farther away from the free edge, so as to put the swollen retrotarsal fold on the stretch. The cuts are to be continued several times in this manner and the hook is to be reinserted at the posterior border of the cartilage, so as to get the whole of the retrotarsal fold over the end of the spatula; by this means the whole of the conjunctiva nearly up to the bulb can be incised. It is generally advisable on both upper lids at one time and on both lower lids a few days later. After the bleeding has entirely ceased, an electrolyzer, consisting of two parallel platinum blades, is connected with a battery, and the two blades are pressed firmly into the first two gooves made by the "sillonneur" and drawn along slowly from end to end. All the grooves are thus cauterized in turn. The lids are then cleansed, covered with vaseline, and bandaged with cold moist compresses.

OBESITY AND LEANNESS.

Obesity, which in the eyes of most people is a mere excess of health, is often a pathological condition deserving commiseration. It is necessary, nevertheless, to distinguish between this exaggerated tendency to adipose and a reasonable corpulence, which is to most people much more becoming than the disposition to leanness that comes generally with advancing age. A certain amount of adipose tissue is absolutely necessary to women, says a competent French medical authority, in order to perfect their physical grace and beauty. It subdues the projections of the figure, fills the accidental hollows, softens the outlines, and renders graceful that which would otherwise be abrupt, angular and offensive to the eye. It offers other advantages that relate rather to health than to beauty, in furnishing pads or cushions that protect the bones, nerves, muscles and sensitive organs that would be liable to injury without the interposition of this yielding medium. The ancient Greeks and Romans had a certain contempt for obesity, and fat men were in consequence often excluded from public affairs. The Bœotians were inclined to obesity and were proverbially stupid. Plato, who was immoderately stout, is spoken of as a remarkable exception among the wise men of Greece, who generally had the opposite tendency. Pompey, the Great, was decidedly disposed to corpulence. Cleopatra found the happy physical mean in Antony, but regarded his rival Cæsar with dislike as thin and cold-blooded. Julius Cæsar was sufficiently thin, but as Cassius was still leaner he thought it quite natural he should be a born conspirator. It is to be observed that lean men are rarely found in the ranks of conspirators. Operatic choruses, however, furnish some notable exceptions. It was but natural that cases of obesity should frequently occur about the Mediterranean, oil and certain vegetables forming an important part of the regimen of all classes. It was necessarily rare in the north of Europe from the earliest epochs down to a date comparatively recent, the ordinary diet being simple and composed principally of lean meats. In none of the northern countries were vegetables much cultivated till after the time of Queen Elizabeth. There were, however, pasties, capons, beer and alcoholic wines, which furnished elements for the adipose tissue now derived from other sources. Obesity has come gradually into the life of the human race with the development of the pleasures of the table. There was nothing in the diet of the cave man that could conduce to corpulence, consisting as it must have of raw or half-cooked game, or of roots that were more or less edible. It was the life of an animal, and animals left to themselves never get fat. It was a struggle for existences, a life of constant labor, and corpulence is not to this day found among the laboring classes. During the middle ages it was chiefly confined to the cloisters or the clergy. Later it appeared as a peculiarity of innkeepers, and sporadic cases were developed here and there as articles of diet became more numerous and the cuisine acquired a degree of excellence. Now it seems to depend proportionally in different countries on local causes and customs, the moderate use of beer and other alcoholic beverages and certain peculiarities of climate rendering it more common in England, Holland and Germany. It is less common in France among the men, but more common among the women, in the case of whom it often has, as its cause, an idle and vicious life. A life of idleness or inaction, or the habit of remaining indoors which the climate of the north of Europe renders necessary during a considerable portion of the year, joined to the conviviality of drinking places, aggravates the tendency where it is hereditary and creates it in case it does not already exist. It is curious to observe that the corpulent are fond of the very things that have caused the disease, and generally go on consuming them till death puts an end to their appetites. The lean man acts on the same principle.—*San Francisco Chronicle.*

HYDATID TUMOR OF THE BRAIN.

Graham and Clubbe furnish an account of what is alleged to be the first recorded case of recovery from cerebral hydatid in Australia (*Australasian Med. Gaz.*, July 15, 1890).

A boy, æt. 16, after a good night's rest, awoke giddy and sick, and with a severe frontal headache. Everything appeared misty, and during the same day he noticed that he was blind in his left eye. Headache and vomiting kept him in bed four days; he then got up, but found his sight was very dim, and that he could not lift

his legs as easily as before. For two weeks his sight seemed to improve, but the weakness in his legs increased, and he had difficulty in using a knife with his right hand. On admission to the hospital, the patient's eyes were prominent, and the pupils were widely dilated and re-acted but feebly to light. There was a faint perception of light in the right eye, but none in the left. Hearing, taste and smell were normal. The superficial and deep reflexes were not altered, neither were sensation and muscular sense. The diagnosis of a tumor in the motor area of the brain was made, and the skull was trephined over a spot corresponding to the upper part of the fissure of Sylvius. Before the button was removed the dura mater was punctured, and pulsating jets of clear fluid escaped. The bone at this point was thinned to about a sixth of an inch, and on removal of the button, the dura mater was found thickened. On incising this, a quantity of clear fluid escaped, and a collapsed hydatid cyst was found lying at the bottom of a large cavity. This was seized with a forceps and removed, leaving the pia mater intact. The brain substance in the motor area had been beveled into a cup-shaped cavity, and, while exposed to view, made no effort to expand. Strict antisepsis was observed throughout the operation and dressing, and the patient did well. He gradually but completely regained power in his right arm and leg, and eight weeks after the operation he was quite active. His mental condition had improved; the protrusion of his eyes, which was well marked before the operation, had nearly disappeared; the pupils were normal and reacted to light. Daylight appeared to him like a red light; at night everything was black.

TRACHEAL TUGGING IN ANEURISM.

1. Tracheal tugging is never present except in aneurism. Though I have repeatedly examined patients who were suffering from other diseases, as well as those who were suspected of having aneurism, with a view to testing the truth of this statement, I have never found the tug perceptible. In a case of Hodgkin's disease, where there were enlarged glands in the thorax, causing a pressure upon the trachea, which could plainly be seen with the laryngoscope, and in which there were other signs of pressure—dilated pupil, unilateral sweating of the face, unilateral epistaxis, and accelerated pulse-rate, all pointing to pressure upon the sympathetic in the root of the neck—I could detect no tug.

2. When tracheal tugging is present the aneurism is so situated as to press from above downward on the left bronchus, or upon that portion of the trachea immediately adjacent to it. To understand thoroughly the mechanism of tracheal tugging, a careful study of the relations of the transverse aorta in a cross section of the frozen chest should be made. The plates of Braune or of Dwight are also very instructive. The length of the transverse arch is not great, and the direction of its course is almost directly backward from the upper border of the second right costal cartilage to the upper part of the left side of the body of the fifth dorsal vertebra. The transverse aorta rides on top of the root of the left lung, lying between the left bronchus and the trachea. An enlargement of the blood-vessel, be it ever so small, will press upon the bronchus or upon the trachea at the root of the bronchus, and impart its pulsation to the air tube. At each beat it would push the bronchus down, and this downward push would necessarily be felt by the trachea and the larynx.—R. L. Macdonnell, in *The Lancet.*

Incompatibles of Antipyrine.—According to Millard and Campbell, the following substances produce precipitates when added to aqueous solutions of antipyrine:

Carbolic acid in saturated solution,
Tannin, (a white insoluble precipitate),
Mercuric chloride, (a white precipitate, soluble in an excess of water),
Infusion catechu,
Infusion cinchona-bark,
Infusion rose-leaves,
Infusion uva ursi,
Solution of extract cinchona-bark,
Tincture catechu,
Tincture cinchona,
Tincture hammamelis,
Tincture iodine, (a precipitate solable in water),
Tincture kino,
Tincture rhubarb.

The following substances produce coloration when added to aqueous solutions of antipyrine:

Hydrocyanic acid, dilute solution,	yellow,
Niric acid, dilute solution,	weak yellow,
Ammonia-alum, dilute solution,	dark yellow,
Amyl nitrate, acid solution,	green,
Nitrous ether, alcoholic solution,	green,
Copper sulphate,	green,
Ferrous sulphate,	yellow-brown,
Ferric sulphate,	blood-red,
Ferric chloride,	blood-red,
Syrup iodide iron,	red brown.

Cardinal Points in Bacteriology.—The words germ, bacteria, microbe, schizomycetes are used in our present literature almost as synonymous terms, but microbe seems preferable to germ or bacteria, and schizomycetes is a better scientific term than either.

That these are unicellular, and asssimilate nourishment, seemingly by absorption in the media in which they live, but, they must transform, (alter) the foods found proper, and yet unfit in nature, for their use and appropriation.

Bacteria living on dead matter encounter no living resistance, whilst those feeding on living tissues, or fluids in living tissues, meet the living cells of the body and have to combat them.

That the diastases secreted by the various beings, whether highly organized, or unicellular and microscopic, have something in common as to their respective objects, and their properties of transforming matter.

The role of microbes in the world is complex and necessary, though some are injurious. They act as scavengers, return to the air and water the organizable elements abstracted daily by the vegetables of the globe, and indirectly by animals, and indispensible to life.

The bacteria that invade living organisms which happen to be fit for their nourishment and growth, are in a sense parasites just as much as the tapeworm is.

Spontaneous generation of living organisms, no matter how little, is a fallacy.—*Bacteriological World.*

Pyoktanin Stains Removable.—The blue stains on the hands, etc., from pyoktanin are readily removably by lathering with common soap, (rubbing in well) and then washing, (or, if need be, brushing) off with alcohol, or with any strong alcoholic liquor.

HOSPITALS, HOMES, ETC.

Memorial Home, Grand Avenue.
Old Ladies Home, South St. Louis.
Protestant Orphans Home, Webster.
German Orphans Home, Natural Bridge Road.
Baptists Orphans Home, 1906 Lafayette Avenue.
St. Ann's Orphans Institution, 10th and O'Fallon Sts.
Episcopal Orphans Home, Grand and Lafayette Avs.
Methodists Orphans Home, Laclede Av. near Grand.
Young Woman's Christian Home, Washington Av. and 19th Street.

PUBLISHERS' NOTICES.

Medical Books.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather binding. Published by Birmingham & Co. 1882. List price, $5.00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

J. H. Chambers & Co.,
914 Locust Street, St. Louis, Mo.

Tourist Rates to All Points.

Call at the office of the Burlington Route, 112 North Fourth Street, for information relative to routes and rates to all the important summer resorts of the North, West, and Northwest.

Sunday Excursions.

A St. Louis, Keokuk & North-Western Railroad train will leave Union Depot, St. Louis, every Sunday morning (beginning June 21st) at 7:30 for Quincy, Ill., and intermediate points. Round trip tickets at very low rates. Ticket offices, 112 N. Fourth Street, and Union Depot.

Worlds' Greatest Physicians.

The Photo-Gravure Group of the Worlds' Greatest Physicians may serve the purpose of a handsome ornament on the wall of any physician's office. The group includes Barker, Playfair, Sims, Peffer, Pasteur, Bartholow, Flint, Virchow, McKenzie, Smith, Thomas, Harvey, Jenner and Koch. They are for sale at $1 a copy by S. C. Newlin, M.D., Indianapolis.

Summer Disturbances of Children.

In fermentative disorders of the alimentary canal in the young, middle-aged or old, Listerine has given most satisfactory results. In the summer diarrhœa of children, Dr. I. N. Love, speaks very highly of it, given in combination with glycerine and simple syrup. A formula that I have time and again used—in fact, it has almost become routine with me of late years—is as follows:

℞	Bismuth sub. nit., - - - -	ʒss.
	Tr. opii, - - - -	drops, xx.
	Syr. ipecac,	
	Syr. rhei arom., - - -	aa ʒij.
	Listerine, - - - -	℥ss.
	Mist. creta, - - - - -	℥j.

M. Sig.: Teaspoonful as often as necessary, but not more frequently than every three or four hours. This for children about ten or twelve months old.

—D. J. Roberts, M.D., in *Southern Practitioner.*

The Southwestern Limited to New York and Boston, via the "Big Four Route," is the "fastest train in America." The only line from St. Louis via Lake Shore & Michigan Southern Ry. landing passengers in Grand Central Station, New York City. Leaves St. Louis 8:05 A. M. daily; vestibuled from end to end; through sleeping car; cafe and dining car service. Ticket offices, corner Broadway and Chestnut streets, and Union Depot, St. Louis, Mo.

ORIGINAL COMMUNICATIONS.

PRESIDENT'S ANNUAL ADDRESS.

BY J. C. EDWARDS, M.D., COTTELVILLE, MO.

Delivered before the St. Charles County Medical Society, May 19, 1891.

GENTLEMEN.—With this meeting closes the fourth year of the existence of our society. Its perpetuity and utility has ceased to be an experiment, and I trust it has become one of the fixed institutions of its kind in the State. May our motto be "Onward and Upward."

Another leaf in our life's history has been turned, and on its page has been irrevocably inscribed the records we have made.

Life's wheel has made another revolution, laden with its hopes and fears, its joys and sorrows, its good and its bad—all are recorded in unfading characters by the angel of time in the books of eternity; and we go forward on another of its revolutions on our missions of mercy to minister to suffering humanity. It behooves us to see to it that we are well and truly equipped for the mission.

I am happy this evening to be able to state to you that nearly every physician in the county stands enrolled as a member of our society. Every meeting at which I have had the pleasure and honor to be present has been marked by uniform courtesy and hearty good will. Our deliberations have been harmonious and attended with every element of success. The papers presented have been of a high professional order, and have always been discussed with ability and professional courtesy.

Permit me, gentlemen, to congratulate you on the success of our society, and the uninterrupted good fellowship that has characterized every meeting during the past four years. May peace and harmony ever prevail, and every moral and social virtue cement us.

As the season is approaching when infantile bowel diseases become prevalent, I will present, gentlemen, for your consideration this evening a few thoughts on the subject of cholera infantum, that fell destroyer of infantile life in both town and country.

No portion of the human family appeals so strongly to our sympathy, and awakens our better natures, like our babes, when suffering from disease, and their care and treatment in health and disease demand and should receive our most careful and prayerful consideration.

Cholera infantum is an acute catarrhal affection of the stomach and bowels, usually occurring during the first two years of infantile life, characterized in its outset by vomiting and purging, running a rapid course, usually, and ending in collapse and death, if not promptly relieved. It, like many other diseases, is, I think, unfortunate in its nomenclature. The name is unsatisfactory and misleading. It does not define the disease, or convey an adequate idea of its nature. Would not catarrhal gastro-enteric fever more fully convey an accurate idea of its characteristics? Would it not be as reasonable and proper to call paralysis that we sometimes see following diphtheria, diphtheria, or the dropsy following scarlet fever, scarlet fever, as to call the vomiting and violent purging caused by gastro colitis, cholera infantum? We should be more definite in our names for disease, and have them, if possible, more definitely convey the nature of the disease.

In order to treat disease intelligently and successfully, it is the utmost importance that we should fully comprehend the nature and causes of the trouble. Then, and then only, can we rationally and successfully fulfil the indications and meet the requirements of the case. The vomiting and purging in the disease under consideration do not constitute the disease. They are rather the symptoms which indicate a conservative effort of nature to eliminate from the system the poison which has invaded it, and involved, perhaps, the nervous, more seriously than the gastro-intestinal system. Are not all manifestations of disease simply an effort of nature to eliminate from the system the morbific or poisonous influences which have invaded it? Most assuredly.

In this disease the first symptoms presenting themselves are manifestly such an effort, made to throw off the ptomaines that have laid siege to the strongest citadel—namely, the nervous system. It is a mistake, I believe, to regard this disease as a mere local irritation, confined to the gastro-intestinal tract. Such a view might and would lead to wrong conclusions, and give rise to improper treatment.

Recent research, made by careful experiments, has shown that this disease, like all others of a kindred nature, is bacterial in its origin, produced by a specific germ, or the poison or ptomaines of such—the product of fermentation or putrefaction.

This poison having gained access to the alimentary canal morbidly affects both the central and sympathetic nervous systems, chiefly the latter, as the stomach and intestines receive their nerve supply largely from that source. This being the case, we can readily perceive that the poison which produces the disease may be either absorbed by the blood, and conveyed to the central ganglia, or it may act by irritating in the intestinal canal the terminal ends of the afferent nerves, and be reflected by them on the ganglia. These being affected, a morbific influence is distributed to the other organs of the body, instead of the usual healthy action; and thus, the nervous centers presiding over the vasomotor mechanism, are practically affected by the poison.

Flint says: "There are certain nerves, the direct action of which, under Faradic stimulation, is to dilate certain blood vessels. These nerves may also be excited by reflex action through the sensory system, producing a similar result." Fibers possessing this prop-

erty undoubtedly exist throughout the body, in the sympathetic, the motor, and mixed nerves; and it is possible that there are inhibitory centers, although such centers have not been definitely located. This mode of action is analogous to that of the inhibitory nerve of the heart, restraining and regulating the action of the vaso motor nerves, and allowing the blood pressure to dilate the vessels. Thus the nerve force being prevented, the circulation becomes demoralized, and the liquid portions of the blood is poured out, as is the case in Asiatic cholera. And we also perceive that the tonicity of the capillaries is lost, and they become dilated, and the blood is retarded in its course, resulting in stasis, which leads to an accumulation of it in the heart and large arteries, thus overthrowing the normal equilibrium of the whole circulation.

This stagnation of the blood unduly stimulates the cardio augmentor and the vaso-constrictor nerve centers, thus producing arterial tension and increasing heart action. This is the legitimate result of an increased effort of nature to restore capillary circulation and remove congestion by forcing the blood onward to restore the lost equilibrium. This gives rise to the high grade of temperature we have in this disease. We frequently find it to be from 105° to 108° F. before collapse sets in. This high temperature is frequently followed by brain symptoms, giving rise to convulsions in the last stage, thus increasing the little patient's sufferings and lessening its chances for life. The germ theory is, that they, the germs, elaborate a specific poison or ptomaine, which is powerful in its action, rapidly absorbed, and manifests its effects through the central nervous system, as is supposed to be the case in Asiatic cholera.

And I think the same theory holds good in this case. Indeed, is not the *modus operandi* of all germ poisons the same? I mean, do they not act through the same media, though they may be different in kind, and produce different effects? Some, perhaps, are more potent than others, or exist in a larger quality, and impress the system quicker and more powerfully? We see this same effect in the action of many drugs. Their action is in proportion to their dose.

Arsenic in poisonous doses produces symptoms analogous to those of cholera. The digestive system is so inseparably connected with and controlled by the nervous system, that any local disturbance of the one may soon become systemic and general in its effects, if not removed.

In the above views as to the nature and pathology of this disease we have also given the proximate cause, which is the specific poison acting on and through the nervous system, first having gained entrance thereto through the alimentary canal.

We pass to the remote or predisposing causes. We find these to be numerous, and among the most potent we have:

1. High temperature, with vitiated atmosphere.
2. Insanitary environment.
3. Improper and unwholesome alimentation.
4. The depressing and irritating effects of teething.
5. Sudden changes of temperature with falling barometer.

These causes are all found to be more potent for evil in cities than in country districts. Hence the higher mortality rates in the former localities and the greater demand for sanitation, as "an ounce of prevention is worth a pound of cure."

For manifest reasons, all of these agents we know, act by lowering the vital energies of the child, and thus invite the action of the toxic agent. High temperature acts in this way, and also by vitiating the food before it is taken, by favoring decomposition and the development of micro organisms. It also depresses the nerve centers and increases the susceptibility to the morbid action of the poison. Teething, taking cold, improper and unwholesome food and vitiated air frequently act by producing a diarrhœa, which lowers the vitality and renders the system more susceptible to the invasion of the microbes. In our zeal, however, to combat the microbe, we should not lose sight of these potent factors for evil.

The food given may exceed the little stomach's power of digestion, or if digested, may fail to be assimilated; or the infant may be fed too frequently, and thus its little machinery thrown into disorder.

Symptoms.—The attack may be ushered in suddenly, or preceded by a diarrhœa for several days, marked by a drowsy restless fretfulness, with prostration. It generally comes on suddenly, without premonitory symptoms. The child is at once stricken down with excessive vomiting and purging. The matter at first thrown off may be mixed with food and bile, but commonly liquid and mucus are ejected. The discharges from the bowels are at first yellow and fæcal, but soon become watery and curdy, changing to green on standing, and having a peculiar musty odor; constant efforts to vomit, and at last the stools hardly stain the cloth. The child presents shrunken and pinched features, mouth partly open, dry and lips chapped, and sometimes bleeding, and the little sufferer picks at them listlessly; eyes sunken and partly closed. The cheeks show small red spots, tenderness over the colon, rash over the body especially on buttocks and genitals, mind torpid, and as the disease progresses, the little sufferer moans or crys out, and attempts to force its hand into its mouth. The head becomes hot, while the body is cold and clammy to the feel; intense thirst and temperature in the rectum from 105° to 108° F. Convulsions may come on, collapse supervenes, and death relieves the little sufferer.

Treatment.—The indications to be met in this disease are four-fold.

1. To remove the cause, both proximate and remote, as speedily as possible.
2. Quiet nervous disturbance and allay gastro-intestinal irritation and prevent inflammation.
3. Restore capillary action.
4. Meet the resulting consequences of the attack—that is, collapse and the ilio colitis and proctitis.

The first indication may be met by regulating the diet, cleaning out the alimentary canal and general hygienic regulations.

If the vomiting and purging are excessive, with intense thirst, which will be the case, give freely sterilized water, cooled down with ice. If it is vomited repeat it again and again for several hours. It cools the internal heat, and the little sufferer takes it greedily.

Withhold food at this stage. If the child is at the breast, and the mother's milk is healthy, it may be allowed to take a small quantity at stated intervals. Powdered ice will now be grateful to the little sufferer, and may be given freely.

Take the temperature in the rectum, as the cool, clammy skin and shrunken features are misleading and may throw you off your guard, and deceive you, as to the real nature and gravity of the case. If you find the temperature from 104° to 108° F., at once order the cold bath. What I mean is to place the child in water at 98° F., and gradually reduce the temperature to 70° or 80° F., by adding cold water. Watch the temperature in the rectum, and when it falls to 100° F., remove the patient from the bath, and wrap in a sheet wrung out of water at 100° F., and cover comfortably in bed, and apply warmth to the feet and cold to the head, if hot. If the temperature again rises in rectum, the bath should be repeated in a few hours.

Move the bowels with calomel; it is the best purgative in these cases, because it is tolerated by the irritable stomach, and is aseptic and anti-microbic in its effects. To be sure that all offending material in the intestinal canal is removed, it is well to follow the purgative with injections of sterilized warm water, thrown well up into the rectum. Boil the water a half hour, and add to it twenty or thirty grains of benzoate or salicylate soda, and with a long gum catheter, attached to the syringe, carry the fluid well up into the bowels.

Having removed the offending causes it becomes necessary to prevent their reappearance. For this purpose I have found salicylate soda, resorcin, salol and corrosive sublimate beneficial. All but the last may be given in continuation, with simple chalk mixture, using glycerine instead of sugar to prevent fermentation. Bismuth sub. nit. with pepsin and chalk mixture are useful, also. The oxalate cerium sometimes has a good effect; carbolic acid and bicarbonate of soda, etc.

To meet the second indication, to quiet the nervous disturbance and allay gastro-intestinal irritation and restore capillary action, I know of no better remedy than opium in some one of its forms. Tinct. opii, the acetate morph. with tinct. belladonna, or morphine hypodermically, is admirably adapted to meet the above indications. When judiciously given, I know of no drug that can take its place.

It is the best drug at our command to restore capillary circulation, relieve nerve irritation, to change osmosis and prevent collapse. It should be given with care and circumspection, and its effects closely watched. Give it alone and not in combination with other remedies. Give it yourself (morphine with atropine is a good combination) hypodermically, and in a dose sufficiently large to produce its remedial effect, and the result will be gratifying to you and prompt in the relief of the little sufferer. Bromide of sodium is sometimes beneficial. Chloral hydrate per rectum sometimes yields most gratifying results.

When the temperature is not excessively high, and notwithstanding our efforts on this line of treatment, collapse is impending or has supervened, then we must resort to stimulation. Pure whisky and the warm bath are the best, the latter at 100 to 105° F. The warm bath is sometimes very effectual in allaying vomiting and quieting nervousness, as well as restoring capillary circulation.

This disease, like Asiatic cholera, is often preceded by diarrhœa, hence any looseness of bowels in children under two years of age should receive prompt attention, especially in warm weather. A few doses of camphorated tinct. opii, bismuth and pepsin or salol, or a dose of castor oil may prevent an attack of the disease, and save the life of the child. It is not regarded as an infectious disease, and is not communicated from one child to another. Dietetic regulations are of paramount importance, and are among the most difficult to successfully carry out. Thoroughly sterilized milk with lime water; the mother's milk, if healthy; rice water, with sweet cream; light animal broths; and, among prepared foods, the Lactated and Imperial Granum furnishes the best list.

Gentlemen, I do not feel at liberty to trespass farther on your time and patience by entering on the subject of *sanitation* for the prevention of this dreaded disease, although it is one of the greatest importance and demands and should receive our most serious consideration, as by a proper understanding and enforcing its principles, can we hope to successfully combat the disease and prevent its ravages.

Gentlemen, I thank you for your kind forbearance and the many courtesies extended to me during the past year, while acting as your presiding officer.

SUSPECTED CANCER OF UTERUS.—ERROR OF DIAGNOSIS DISCLOSED BY POST-MORTEM.

BY A. H. MEISENBACH, M.D., ST. LOUIS.

Read before the St. Louis Medical Society, May 30, 1891.

Mrs. G., æt. 64, first came under my professional care in December, 1890, and gave the following history: About one year or more ago she, after suffering several years, consulted a prominent and experienced gynæcologist, who, after an examination, pronounced her case one of cancer of the womb; treated her for some time, and informed her relatives that nothing could be done except to give narcotics and then left the case.

She then applied to an old and well-known surgeon with a view to operation.

After an examination he stated positively there was no cancer, but that she was suffering from cystitis. He treated her for some time by means of narcotics, and demulcents internally and by washing out the bladder by means of antiseptic, anodyne and alkaline solutions.

Under this treatment she was greatly relieved and apparently recovered.

In December, 1890, I was called.

She complained of rectal and vesical tenesmus of the most distressing character, pain on the left side extending from the pubes, also to an ill-defined spot under the arch of the ribs "*upward and backward and inward from the short ribs*" as she described it.

It was of a spasmodic character, following a course which corresponded fairly to about the position of the left ureter, and was accompanied by gastric distress, cool extremities and face, cold sweat, small rapid pulse, and sighing respiration.

She also complained that she had to pass urine about every ten minutes and suffered from an agonizing pain and sense of fullness in bladder and its neck, burning in urethra and a feeling as if a raw surface or tumor was situated just outside of the neck of the bladder.

The urine was loaded with pus, uric acid, and urates, mucus in shreds and small shreds of coagulated blood.

Urine sometimes alkaline, and then contained phosphates. Bowels constipated.

Examination of abdomen was unsatisfactory in as much as no pathological condition of a definite character could be found.

Digital examination of rectum revealed the presence of piles, external and internal.

Instrumental vaginal examination was not made on account of the great suffering and weakness of the patient.

Diagnosis of cancer was not accepted on account of the want of any kind of discharge from vagina (although it was stated that about two years ago a hæmorrhage, which was said to have come from vagina, occurred), and because examination of abdomen failed to reveal an enlarged uterus or glands.

Diagnosis: Cystitis, nephritic colic with probable presence of pyelitis.

She recovered (apparently) from this condition of intense suffering after about four weeks treatment, so that all pain disappeared, appetite and strength returned, sleep unbroken, and she again was able to be up and about, but not yet able to do anything more than clearing up her bed-room.

About two weeks later she again sent for me and complained of vague symptoms, which I termed "nervous" and which disappeared under the use of bromides and "talk."

About ten days after this I was again called in great haste and was given the following history, and found the following symptoms:

Had been again troubled with vague symptoms of uneasiness in abdomen, cough, nausea and occasional vomiting, loss of appetite, painful sensations in stomach, constipation, and pain of a "boring" character between shoulders.

Physical examination revealed tenderness over the region of the stomach, transverse and descending colon, and tympanites of same. Pulse 72.

I prescribed and promised to call again next morning. At night I was called again and found meteorism to an intense degree, pain increased on pressure all over the abdomen, but strongest over and radiating from stomach.

Pulse 130, small and weak. Clammy skin. Extremities cold. Temperature 105. Respiration purely thoracic and 32. Hyppocratic countenance.

Diagnosis: Peritonitis, diffused, and probably due to a perforating ulcer of the stomach.

After about eleven days' treatment she recovered.

On April 17, 1891, I made my last visit, and on the 21st received a report at my office that she was feeling fairly well.

On May 12 I was recalled, but could make nothing further out of the case than the exhausted condition which one would naturally expect after such great suffering.

On May 17, at 7 o'clock P. M., I was requested to visit her next morning, as she was not feeling quite right.

I was then informed that she passed a very restless night. The following condition was found, viz: Unconscious, mouth open, respiration deep and somewhat snoring, pupils about normal in size but reacted slowly to light, ptosis of both lids, no paralysis otherwise noticeable.

She could be aroused sufficiently from her unconsciousness to squeeze my hand and caress my cheek when asked if she recognized me.

On palpating the abdomen in the region of the bladder she flinched, and her hand slowly followed mine, gently grasped and tried to remove it from her abdomen.

Pressure over right temporal bone and its mastoid process, right parietal, and right half of occipital bones caused her to give evidence of pain and to try to remove offending hand. No such symptoms could be elicited on corresponding parts of left side, nor on frontal bone.

Patient was lying upon her back, and when turned on the right or left side, the head would apparently be forcibly turned to left side, and in a very short time she would regain the supine position. Pulse 78, slow, full, and regular. Bowels constipated, no passage having taken place since last Friday (May 15), when a scybala about the size of a marble came away.

The urine was passed involuntarily and had an ammoniacal odor.

Rectal injections were used but were returned immediately without bringing away any fæcal matter.

On introducing the finger into rectum (under cover of bed clothes) I was surprised at the ease of introduction, and at first thought I had accidentally entered the vagina, so patent was the anus. This was due to paralysis of the sphincter.

No fæcal matter could be felt in the rectum, which latter seemed to be very much dilated; in fact, made the impression of being "ballooned."

About three days before her death she had a paroxysm of pain during which she pulled the hair on the right side of her head, and groaned but did not scream.

"Cheyne-Stoke's" respiration made its appearance and lasted about eighteen hours, after which this symptom disappeared and respiration became more normal. I was also informed that during the night she closed her mouth and breathed through her nose.

About thirty-six hours before her death the abdomen again became decidedly tympanitic and tense; the pulse rose to 130, respiration purely thoracic and 32 in number, so that I believed she again had peritonitis.

She lingered until May 25, and died on that day at 2 o'clock A. M.

She was embalmed early in the morning and the post-mortem made at 5 o'clock P. M.

TRANSLATION.

ABSTRACTS FROM THE FRENCH AND GERMAN.

FOR THE WEEKLY MEDICAL REVIEW.

BY FRITZ NEUHOFF, M.D., ST. LOUIS.

Chorea—Its Pathology and Treatment.

Chórea is a neurosis probably produced by irritation in the motor centers of the cerebrum, through which the influence of the will over motion is disturbed. In isolated cases it may be caused by capillary emboli or other changes in the lenticular nucleus.

Psychical influences or anæmia, perhaps by the vasomotor disturbance of the motor centers which they occasion, are the most frequent causes of chorea.

Chorea frequently follows rheumatism. Most probably the same irritant which produces rheumatism may, by its effects on the motor centers, bring about chorea.

The frequent coincidence of heart affections and chorea is largely due to the etiological connection of both of these diseases with rheumatism. Still, it is possible that heart affections may give rise to vasomotor disturbances in the motor areas, and that recent endocarditis may produce capillary emboli in the same locality, both of which phenomena might readily cause chorea.

The therapeutics recommended by different authorities vary according to the view which they take of the etiology. Thus some recommend chiefly nervines and tonics; others recommend anti-rheumatics; while still others lay the greatest stress on the treatment of such heart affections as may be present.

I shall speak only of those medicines which are shown to efficacious by the unanimous testimony of a large number of clinical reports. This claim can in reality be substantiated only for arsenic and antipyrin. There can be no doubt that these two drugs do certainly shorten and ameliorate the course of chorea. They must, however, be given in sufficiently large doses.

As less important, though still useful in the treatment of chorea, I wish to recommend iron for those cases in which anæmia exists, and chloral hydrate for those in which there are great restlessness and insomnia.

So much for the medical treatment of chorea. I will now consider the physical treatment. Some authorities recommend absolute mental and physical quietude for choreic patients. Others recommend gymnastics as a cure, claiming that it improves the general nutrition as well as the nutrition of the muscles, and that furthermore it tends to bring the muscles back under the control of the will. My own experience teaches me that all mental exertion is to be avoided, likewise all bodily exertion, except such as is conducted strictly under the direction of the physician. Certain movements must be made before the patient, and he must imitate them, at the same time watching carefully the execution of his movements. From simple we must gradually go to more complex exercises, always carefully avoiding fatigue. This methodical gymnastics will be found to aid greatly other treatment.

Massage and electricity do not seem capable of accomplishing much in the management of chorea.

As to balneo- and hydro-therapy in chorea, I would say that I do not think it well in the acute stage to deprive patients of their home comforts and send them to resorts.

After the acute stage has passed cold water treatment in the shape of baths or otherwise may be a useful adjuvant in suitable cases. The patient's peculiarities must be regarded, his manner of reacting and his antipathy for cold temperatures should be taken into account. Never should he be excited. Shower baths are very seldom applicable. Warm or lukewarm baths are sometimes preferable to cold ones. Especially in cases complicated with rheumatism and heart disease should cold water be abhorred. When the heart trouble is acute, no baths at all should be employed.—Dr. Groedel, in *Deut. Med. Zeit.*

A New Method of Treating Pulmonary Phthisis.

Dr. Tranjen (*Berlin Klin. Woch.*) saw a case of what appeared to be phthisis florida in a syphilitic subject get well under a course of mercury and iodide. He therefore concluded to try this treatment in other cases of phthisis. Afraid to give mercury by the mouth to weak consumptives, the author employed intra-muscular injections of hydrargyrum thymolo—aceticum. This he supplemented later on by iodide of potash per os in small doses.

Fifty-two cases have been thus treated. Of this number only eleven remained long enough under ob-

servation to be commented upon. Of these eleven cases four showed only subjective signs of improvement. The remainder showed both subjective and objective signs of improvement. The author classifies his results as follows:

1. In the incipient stage of pulmonary consumption he has obtained very remarkable improvement which, if it continues, may be called a cure.

2. In slightly farther advanced cases more or less improvement was always manifested.

3. Even in far advanced cases no evil results could ever be attributed to the treatment.

The intermuscular injections are repeated once every seven to ten days. A Pravaz syringeful of the following mixture is injected each time: hydrarg. thymolacet., 0.75, paraffin liquid, 10.0, tere exactissime.

After the second or third injection 0.4 of iodide of potash is given three times a day. Patients having fever receive no iodide until after their fever has subsided.—*Deut. Med. Zeit.*

Treatment of Malignant Tumors by Pyoktanin.

After several years' experience in this direction Dr. Mosetig has become convinced that pyoktanin (methyl blue) injections made into malignant tumors not fit for operation may bring about shriveling up of the neoplasms. He presented two cases and several clinical reports to prove that pyoktanin may produce considerable amelioration in malignant tumors. The results obtained do not preclude the possibility of a complete cure.

M. Lang has had recourse to pyoktanin injections in cases of gonorrhœa, cystitis and pyelitis. He asserts that the new drug is supported without inconvenience in large doses. The urine rapidly takes on the tint of the coloring matter.

Neudorfer, who has employed pyoktanin for many years as a dressing for wounds, has also applied lotions of pyoktanin and mixtures of talc and pyoktanin in a case of cancer of the breast. Under this treatment the tumor diminished in size.—*Rev. Int. de Bib. Med.*

Acute Gonorrhœa Treated by Injections of Bicarbonate of Soda.

Gonorrhœal pus is acid, and acidity and virulence are correlatives.

On the above logic Dr. Castellan has founded his treatment of acute gonorrhœa by alkaline injections.

He finds that bicarbonate of soda injections rapidly cause the discharge to diminish, and also ameliorate greatly the pains of micturition.

He reports quite a number of cases speedily cured by this new treatment, the average time required for a cure being 20 days.

The strength of the soda injection employed was 1%. —*Arch. Med. Nav.—Rev Int. de Bib. Med.*

Treatment of Enuresis by Stretching the Sphincter of the Bladder.

Sanger treats enuresis in the female by the following procedure: He introduces a metal catheter 5 to 7 cm. deep into the bladder. While the index finger of the right hand closes the end of the catheter, the index finger of the left hand is placed on that part of the catheter which is just outside of the meatus urinarius. This latter finger is made to exercise a firm but elastic pressure, first downward and then to either side. In this manner the sphincter vesicæ and the muscles of the urethra are forcibly stretched. If it is possible, the author recommends furthermore to introduce one finger into the vagina and with it to press the urethral wall against the catheter.

From eight to twelve stretchings in each of the three directions constitute one seance.

The rationale of this treatment consists in the fact, that the stretching produces in a reflex manner strong contractions of the sphincter vesicæ.

General treatment, such as regulation of the bowels, etc., must not be neglected.

The stretching cure can also be beneficially employed in cases of paresis of the sphincter vesicæ from peripheral or central causes, excepting those cases where exists abnormal width of the urethra and the neck of the bladder.

Sanger has for some years practiced the above described treatment with very good results.—*Arch. f. Gyn.—Centr. f. g. Therap.*

London's Soot and Fogs.—The amount of carbonaceous and other particles deposited upon glass houses is a good indication of what the London atmosphere contains, and in many places it is only possible to procure a due admission of light to the plants by frequently washing the glass roofs. At one establishment last week two tanks constructed to collect the rain from a house completed a few years since, were cleared out, and no less than ten barrowloads of sooty matter were removed, all of which must have been conveyed into the tanks from the glass. One scientific gentleman has been engaged in computing the amount of soot deposited from London air, and arrived at the following conclusions; He collected the smoke deposited on a patch of snow in Canonbury one square link, about 8 inches in extent, and obtained from it two grains of soot. As London covers 110 square miles, this would give us for the whole area 1,000 tons. As the quantity measured fell in 10 days, a month's allowance would need 1,000 horses to cart it off, and these stretched in line would extend four miles. Hence London's black fog.—*Pharmaceutical Record.*

Now is the time to subscribe for the Weekly Medical Review.

WEEKLY MEDICAL REVIEW.

G. W. Broome, M.D., Editor, - - - - 520 Olive St.
William Dickinson, Associate Editor, 1322 Olive St.

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Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

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SATURDAY, JUNE 20, 1891.

MEDICAL PROPRIETIES.

CHAPTER I.

Table of Contents of Medical Journals.

Its Purpose and Place.

These inquiries are often forced upon our consideration when, desiring to ascertain the nature of what a journal contains, we instinctively look for the "table" on the title page; it is not there. We then look on the second page; it is not there. Disappointed, we look for it, as a preface to the body of the journal; it is not there. Again baffled, we look for it at the end; there it is usually found, but rarely enjoying a special page; more frequently immersed in a chaos of promiscuous advertisements. As the innate sense of harmony and propriety demands a just and proper arrangement and collocation of all matters, so in respect to the table of contents, there is only *one* just and proper place, that can enjoy the distinction of being the *best*; and this, in our judgment, is on the title page, or on the reverse of this page. The editors of most of the journals are evidently of our opinion, for by their works we know them. In the absence of any formulated regulation, neither accident, notion or caprice can determine it. In our vernacular, we have several terms, nearly synonymous of this device (*e. g.*), "Contents," "Table of Contents," "Index," etc. The French has "*Sommaire*," the German, "*Inhalt*," the Spanish "*Sumario*," the Italian "*Indice del presente Fasciculo*." The French most completely expresses the import of the term and its object, being a "Summary" of that which the body of the journal contains. This "Table," we think, should occupy the most conspicuous place, that at a glance, the character and entire scope of the contents may be seized by the eye. If careful search *must* be made for it, the mind distracted is not in the highest degree of composure to appreciate the full value of that which is embodied. If its seclusion among the advertisements or other incongruous matter is an act of malice prepense, for the purpose of encouraging industry and research in its exhumation, the object may be laudable, but its attainment can hardly be regarded as a success. Barnum, in his day, thoroughly understood the secret, mode and value of advertising, and placed the most attractive features of his enterprise in the most conspicuous places. Why should not every editor appropriate his wisdom, and render the *first* page the most attractive and compendious, and there display the gist of the articles contained. Doubtless, the issue, in its *entirety*, is excellent and worthy the intellectual digestion of every reader; but all will not willingly make geese of themselves, with their *pate de foie gras*, by gormandizing the whole, in order to find that particular subject in which he may be specially interested. The object of location of the "Table," at the end may be, that, after all is read and mentally appropriated, it may exhibit to the reader at a glance the extent of what he has accomplished; as the traveler, who has completed the toilsome ascent, turns and retrospects the length of the way which he has traversed. If so, the object is well conceived and commendably executed. In fine, there is a natural and acknowledged propriety in all things, which is in harmony with the general and eternal fitness. Any considerable deviation from this standard incurs the due penalty of its violation. If it can be satisfactorily demonstrated that the "Table" best subserves the purposes designed by being a caudal appendage, we will then accept the collocation at the end, without murmur or complaint; till then we shall, with tenacity, maintain the opinion that its rightful place is at the *beginning*, thus happily introducing the reader to an epitome of that which he may find within.

A Poor Field.

Scott County, Kansas, has but one physician, and he is now compelled to leave because of the following conditions: But one natural death has occurred during the past year; obstetric cases and accidents happen, but infrequently; and the atmosphere is so pure, and the people so generally healthy, that even an ordinary living cannot be made by one practicing the healing art. The population of the county is given at 1,260."—*N. Y. Medical Record.*

"N. B. The above orginally appeared in the *Kansas Medical Journal.*"

The *Kansas Medical Journal* prints the above in its last issue and immediately following the N. B. appended thereto in which it calls the attention of the *N. Y. Medical Record* to piracy, the *Journal* itself commits a theft by publishing, as its own, the following item relating to Dr. Senn.

"Prof. Senn, in speaking of Koch's tuberculin, says it is absolutely faulty and can never be placed in the category of rationalism."

J. Harrison White and Enterprising Journalism.

The Weekly Medical Review has secured the services of Mr. J. Harrison White, as its business manager. This is only another striking evidence of the journalistic enterprise so frequently shown by the Review of late. No man in this country is better or more favorably known to the profession, or to the medical advertising public than Mr. White, and our contemporaries must concede that the business end of the Review, as well as those who patronize it, will receive conscientious consideration.

After seven years' experience in the same capacity with the *Journal of the Amer. Med. Association,* Mr. White enters upon this new field abundantly equipped for the duties before him.

NEWS OF THE WEEK

Dr. and Mrs. Eugene Gehrung have left the city for quite a sojourn in Europe, thus swelling the unusual exodus of St. Louisans, moved by the various impulses and motives of recreation, travel, sight seeing, or of professional profit.

A New Medical Journal.—Rumor has it that a new medical weekly will be published in St. Louis before the year closes, the editor and publisher to be none less than Dr. Bransford Lewis (late editor of the Review) who is now in Europe. With the Dr's ripe experience and ready pen, who can predict aught but success?—*Med. Herald.*

Hydrology.—A chair of hydrology has been recently (April 8, 1891) established in the new Faculty of Medicine at Toulouse, France. The subjects embraced will be the composition, therapeutic effects of different mineral waters, therapeutic indications for their use, and all that pertains to their employment in medicine. To have taken this initiative argues an increasing conviction in the public mind of the great value of the agent which Nature from her inexhaustible laboratories has provided in profusion for the arrest of disease and the promotion of health.

St. Louis Medical Society.—The transactions of the Society on the 6th inst. were of unusual interest. Rarely are so many pathological specimens presented for inspection; valuable in themselves and more so by the suggestions to which they gave rise. Of these see a full account in the next number of the Review. The excellence of papers and the discussions as they appear in print, we are happy to learn, are appreciated by the medical public and procure a wider circle of readers as is demonstrated by a constantly increasing number of subscribers to the Review.

MEDICAL ITEMS.

Dr. Virchow denounces the use of tuberculin and warns the profession against its use.

Harvard Medical School adopts the four years' course of study after September, 1892.

The career of the Pasteur Institute, Chicago, has been of distinguished benefit, having treated in eleven months fifty-five well recognized cases of rabies; all of whom are now enjoying good health.

A propos of the prevention of the depopulation of France, Prof. Tarnier has set a good example. He has offered a gift of 100 francs to every family of his native town to whom a child shall be born in the course of the year 1892.

Weekly Medical Review Quoted Abroad.—The *Deutsche Medicinische Wochenschrift* of December 25, 1890, quotes three abstracts from the Weekly Medical Review. The *Revue Internationale de Bibliographie Medicale* of March 25, 1891, also quotes an article from the Review. Who says our journal is not read abroad?

The *Chicago Medical Recorder* comes to us laden with the best things in medical and scientific literature. The communication of G. Frank Lydston, M.D., upon "criminal crania" is most elaborate and of great interest; it will become incorporated into the permanent literature on craniology and constitute one of the most complete and valuable contributions. The typographical and mechanic execution of the *Recorder* leaves nothing to be desired and is one of the most esteemed of our exchanges.

FOREIGN CORRESPONDENCE.

BERLIN LETTER.

BERLIN, May 28, 1891.

DEAR DR. NEUHOFF.—After four weeks' vacation the Berlin Medical Society has again resumed its sessions. During last night's meeting Prof. Mendel read a paper on "Why is is that the large majority of cases of apoplexia cerebri sanguineus the ruptured blood vessels are located either in the corpora striata or the optic thalamus."

Prof. Mendel spoke as follows: "It is an undisputed fact that by far the greater majority of cases of apoplexia cerebri sanguineus present similar clinical post-mortem lesions.

Reviewing the anatomy of the brain we find that terminal arteries exist only in the medullary and not in the cortical portion of the brain. The artery of the striatum is a terminal artery.

What, now, is the blood pressure in a terminal artery, the pressure in the carotid being known? To answer this question I constructed a system of rubber tubes in imitation of the arterial system of the brain. At various points in this system, I attached manometers. Having filled the tubes with water I applied pressure to the rubber ball which took the place of the heart. The manometer now showed that the pressure in the tube representing the terminal artery (arteria corp. striat.) was nearly identical with the pressure in the rubber ball. Thus when the pressure in the ball was 40, that in the tube representing the art. corp. striat. was 39, while the pressure in the other parts of the tube system was 28, 39 and 30. These latter figures would indicate the relative pressure in the other arteries of the cortical and medullary portions of the brain.

If, now, while the pressure is kept up in the tubes, a few drops of water are allowed to escape from the representative art. corp. striat., then the pressure in medullary and cortical portion of the tube system will fall from 26-29 30 down to 19-21-24. This explains the symptoms of anæmia of the cerebral cortex which are observed in apoplexia cerebri sanguineus.

The present method of treatment in apoplexia cerebri sanguinis (namely ice to the head) is of doubtful utility.

In the first place it is absurd to believe that the cold would penetrate scalp, bone and brain and finally reach the site of hæmorrhage. In the second place even if the cold could penetrate thus far, it would hinder thrombosis and would increase the cortical anæmia. My therapeutics is absolute quiet and elevated position of the head."

Prof Virchow said: "Prof. Mendel's experiments have cleared up one factor in the etiology of apoplexia, but one question still remains unanswered. It is, why are the terminal arteries in the medullary portion of the brain so subject to the miliary aneurisms which are always present before apoplexia occurs?"

With this question still unanswered the Society adjourned. Yours truly, AL. J. KANNE, M.D.

CORRESPONDENCE.

TREATMENT OF TUBERCULOSIS.

The following letter was handed to Dr. Neuhoff who makes many of the translations for the REVIEW, for reply, which is herewith appended and which we trust will prove entirely satisfactory to Dr. Scott:

IOLA, KAN., flune 1, 1891.

EDITOR REVIEW.—In an article copied from a German medical journal which appeared in a recent number of the REVIEW, the writer states that he has cured 17 cases of tuberculosis by the administration of two grammes daily of creasote divided into 3 doses and given before the principal meals, in capsules. We have understood, therefore, that three drops of the drug was the maximum dose. Will you please give your opinion in the next issue of the REVIEW regarding these doses. W. D. SCOTT, M.D.

In reply to the above question as to the maximum dose of creasote I will state that it depends largely on the idiosyncrasy of the patient and the method of administering the drug.

That is, by starting with a small dose and gradually increasing it, you are able to give much larger amounts than by giving a large dose in the beginning.

The method which I have found to answer best is as follows:

Start with one drop given in a glassful of milk after meals, three times a day. Then increase this dose by one-half drop every day until you reach the point of tolerance of the patient's stomach, which is indicated by pain in the stomach directly after taking the medicine. When this point has been reached you must decrease the dose slightly and continue the latter dose as the patient's dose.

Proceeding in the above manner I have been able to give, without inconvenience to the patient, ten drops three times a day, which is equal to two grammes a day, the amount mentioned in the article translated in the REVIEW. F. NEUHOFF.

St. Louis, June 4, 1891.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Saturday evening, June 6, 1891, Dr. A. D. WILLIAMS in the chair.

STENOSIS OF ŒSOPHAGUS FROM SWALLOWING CONCENTRATED LYE.

DR. T. F. PREWITT presented specimens and said: The first case is that of A. G., æt. 3; she swallowed concentrated lye May 10, 1890, and had great difficulty in swallowing, even liquids, ever since. At times the occlusion of the œsophagus has been complete for two or three days at a time; and, in consequence, nutritive en-

emata had been necessitated for nourishment. At other times she could swallow milk with some facility. After a period of complete occlusion, the ability to swallow would sometimes spontaneously return; but should she succeed in swallowing a considerable quantity of milk, after patient and persevering effort, she would become feverish. She had been under the immediate care of Dr. Kirchner, but seen by several other physicians. Various attempts at catheterization have been made, with only partial success with the smallest instrument; and the operator was often unable to pass even these.

At the time when first brought to the speaker, May 17, 1891, the child was greatly emaciated. All attempts then made at catheterization failed. She had been unable to swallow anything for two or three days, but on that morning seemed to have recovered partial capacity to swallow. Gastrostomy was advised, but a few days' delay was suggested, as she was then able to swallow, and much exhausted by previous fasting.

On May 31, the operation was performed, by making an incision two inches in length, an inch to the right of and parallel to the ribs on the left side opposite the tip of the ninth cartilage. No consideration was given to the muscular and other structures in the line of incision; but when the peritoneum was reached, it was picked up with forceps, nicked with the knife, and divided upon the finger to the extent of an inch and a half.

The stomach, of course, was collapsed and high up; to reach it, the suggestion of Segoud was followed; the fingers were carried under the left lobe of the liver to the vertebral column, and then moved to the left until the lesser curvature was felt. A fold of the anterior parietes was then picked up, brought into the wound and held with two silver wires, passed through the serous and muscular coats, three-quarters of an inch apart. As the child was still able to swallow a certain amount of milk and soup, the opening of the stomach was postponed for twenty-four hours.

For fixing the stomach to the abdominal walls, the plan suggested by Bryant and advised by Greig Smith was adopted; a straight needle, armed with a long silk thread, was passed under the peritoneal and muscular coats of the stomach; at the distance of every three-fourths of an inch it is brought out and again inserted, leaving a loop of thread an inch and a half or more protruding from the serous surface. The needle in this way is carried around an area of perhaps two inches in diameter. Then a modified Reverdin needle is carried through the abdominal walls at points opposite the loops in the stomach; these are caught in the eye of the needle, pulled through the walls, and a piece of rubber tubing run through them.

The thread is then drawn tight over the tubing. The walls of the stomach are thus kept in accurate apposition with the parietal peritoneum under elastic pressure.

Twenty-four hours afterward, the effects of the anæsthetic having passed off, and a certain amount of adhesion having certainly taken place, a small opening was made first through the serous coat and then through the muscular and mucous coats of the stomach; this was then dilated by insinuating a small pair of forceps through the opening and spreading the blades. A rubber tube was passed in by the side of the forceps and left *in situ*.

On the following day, 48 hours after the operation, the child had a temperature of 101.8°. Quinine was administered through the tube, and the fever disappeared in 24 hours. Yesterday the tube was forced out during a coughing spell; the mother being too timid to replace it, the child passed the night and part of the forenoon without nourishment. The tube was replaced by the speaker to-day.

Laparotomy.

The next case is one of laparotomy. The man was brought to the hospital, having sustained a fall of fifteen or twenty feet, with the probability that he was suffering from a fracture of the neck of the femur; this could not be detected, yet he was considerably bruised about the head, and possibly had sustained some internal injuries, though the evidences were not conclusive.

The speaker on the next day was informed there was blood in the urine. This was ascertained to come from the urethra, for a catheter being passed into the bladder, it was filled with blood from the urethra; after entearing the bladder, the urine was found to be perfectly clear. On the second or third day after admission, the man had high fever, became delirious, and was evidently suffering from some profound lesion somewhere. On examining the abdomen, a circumscribed hardness was found in the hypogastrium of a somewhat crescentic shape, suggesting a slight rupture of the bladder; but as there was no general peritonitis, it was probable there was some slight infiltration in the connective tissue, extra peritoneal. At all events, heroic interposition and immediate for the man was imperative.

Chloroform being administered, an incision was made through the structures down to the peritoneum. Quite a large quantity of sanious fluid, with possibly a few leucocytes, was found, but no pus. The peritoneum itself appearing sloughy, and in bad condition; this also was incised. A considerable portion of the intestines were matted together, and presented a grayish color. These adhesions were separated, but no pus was found, only bloody serum; it was deemed advisable to proceed no farther, but to pack it, taking the precaution, however, to extend the incision in the parietes above the swelling. No indication of abdominal effusion being found, and being assured that there was no peritonitis, the opening was packed with iodoform gauze, and the dressing completed. The next day the man became rational, fever subsided very much, and he is now practically convalescent.

Excision of the Tongue.

The next case is one of excision of the tongue in a

man, nearly 70 years of age. He presented himself with an epithelioma, involving the under surface of the tongue, and the floor of the mouth. He had also serious disease of the heart; the pulse was not only irregular, but upon placing the ear to the chest, there could be perceived fluttering movements, but which were not transmitted to the wrist. On examining the urine there was evidence of old interstitial nephritis, casts and albumen, etc. These symptoms being present in a man of 70 years of age, rendered the outlook rather discouraging. He was a German, and spoke English very imperfectly. His daughter, being intimately informed, explained to her father the serious character of his trouble, and the great danger of using chloroform; yet it was the only anæsthetic that could be used, as ether would be more objectionable. She was informed that possibly he might die from the effects of the chloroform, but that an early death was inevitable from the cancer unless it was removed. After she had explained the matter to her father, he took it very philosophically, and said he would have the operation done, since possible life was in the scales against certain death. Accordingly chloroform was administered, and with the view of facilitating the operation and obtaining a more ready access to the tongue, the incision was made inferiorly, with the expectation of pulling the tongue down and out through the incision more readily and rapidly. Practically this proved impossible; for at every attempt to pull the man's tongue down, respiration was arrested, and he became livid in the face. Two or three times death seemed imminent; at last the tongue was pulled up and removed through the mouth. Various blood vessels were tied, among them the lingual artery; still there was considerable bleeding from numerous other vessels, which were also tied. Eventually the whole of the growth was successfully removed, involving, perhaps, something more than half the tongue. The patient rallied from the operation, and has been doing very well ever since.

In another case only a few days ago, the speaker removed, from the opposite side of the mouth, a growth involving the periosteum and bone to such an extent that it was thought best to make a section of the bone. This was done by cutting through the jaws a little to one side, pulling the two sides of the jaw apart, and sawing out a section of the bone on the left side, including all that portion which was involved in the disease. In this latter case, also, something more than half the tongue was removed. He made uninterrupted progress toward recovery, is now going about, and to-day visited my office.

Hernial Tumor.

Dr. Prewitt presented also a very interesting specimen which was removed two days since from a young man, a patient of Dr. Meyer, affected with a hernia, apparently irreducible. The speaker supposed it was a mass of omentum; it was very hard, and contained a knuckle of bowel, which could be reduced, but this mass was irreducible. It was supposed to be an old omental hernia, an entero-epiplocele. To-day Dr. Meyer and the speaker operated. Cutting down, this hard mass was found, and having assured ourselves there was no bowel in it, we pulled it down, and cut it off well up toward the internal abdominal ring. On laying it open, a very peculiar appearance was found. The patient had been subjected to treatment by electricity. He had not discovered anything wrong, until about four weeks ago, when he knocked himself against the corner of a table or other projecting body; and soon after perceived a swelling present; he immediately consulted some doctor, who applied a battery to it. The body removed is very hard, almost like gristle. It is impossible to account for its hardness, except upon the theory that it is due to the electricity employed; its application was continued only two weeks; how frequently is not known, and yet the surface of the interior does not resemble serous membrane at all. It looks like altered mucous membrane, almost like a cystic degeneration. Anxiety was not wanting, lest it may prove to be of a different character. Some portion of it may have been left higher up. A microscopical examination of it should be made.

Ovaries and Fallopian Tubes.

Dr. Prewitt presented also ovaries and Fallopian tubes, and said they can scarcely be called pus tubes; they resemble the sequelæ of interstitial adhesive inflammation of the Fallopian tubes and ovaries. This patient miscarried about ten years ago, and was seen by the speaker shortly after this event. She has suffered very much pain ever since; this has been constant, and rendered her an invalid until the present time; and for the last two or three years her mind has been somewhat impaired. Upon vaginal examination there could be felt, by the side of the uterus low back, hard masses—hard lumps. She presented no evidences of purulent accumulation, had had no fever, rigors or anything of that character; but there was something decidedly wrong, operating powerfully upon her physical constitution, causing much suffering, and with it affecting seriously her mental condition. A laparotomy was determined upon and performed, the ovaries and tubes being removed. The ovaries had been forced down into Douglas' cul-de-sac, and had become so firmly adherent that it was difficult to find any line of demarcation between them and other structures, and required to be eviscerated, as it were. The Fallopian tube on the right side was very much enlarged and tortuous, and contained fluid and probably some pus corpuscles; the left was much less involved. The operation was deemed necessary on account of the general suffering endured, and the great injury, in consequence, to her health. The ovaries are not large; they are rather atrophied; and the area of adhesions can easily be seen. The operation was performed about ten days ago; she is now convalescent, in fact, almost well.

The speaker said this case is very similar to one

which he reported about 18 months ago; and these cases taken together seem to indicate that there is a class of tubes and ovaries which are not, strictly speaking, pus tubes, and do not demand operation on account of the formation of suspected abscess, but in consequence of displacements and adhesions—the adhesive inflammation having drawn the ovaries down upon the tubes, obliterated the tubal opening and left a certain amount of accumulation in the tubes. In the case formerly reported, the tubes were in precisely the same condition, bound down deep in Douglas' cul-de-sac. The speaker said he operated upon the woman; and she is now perfectly relieved of all her pelvic suffering, but presents a different and anomalous symptom (*i.e.*), frequent flushing of the face, also a sense of fulness about the head and face, undoubtedly the result of the cessation of the menstrual flow, produced by the operation. These latter symptoms have given her considerable annoyance; but otherwise she is perfectly healthy. The patient from whom these ovaries and tubes now presented were removed, is about 40 years old. The operation was done about ten days ago; she is already relieved from the pain with which she had suffered, but there is no amelioration of her mental faculties.

Dr. A. H. Meisenbach presented a specimen and said:—This specimen was obtained from the anatomical room; its history is not known; but it illustrates very beautifully the way in which nature so kindly tolerates impacted bones and reunites them; closes the medullary canal and allows adhesions of the superimposed hard parts to take place. The knee-joint (femur and tibia, *in situ*) is opened longitudinally.

Cerebellar Apoplexy.

Dr. Spencer Graves.—This cerebellum was removed from a patient, æt. 70, who died April 22. Both legs and right arm were disabled—that is, there was a lack of harmony in muscular action rather than paralysis. His power of speech was somewhat impaired, but he articulated distinctly enough for one to understand what he said. He complained of nothing except pain in the head, and of the fact that he could not walk. On inquiry, it was ascertained that after eating his dinner, he went out and sat on a porch; he was soon after dis covered by some member of the family in the act of vomiting, and helpless, and was carried upstairs to his room. The next day his condition was but little changed, and so remained for several days; nor did other symptoms develop, except some disturbance of vision; he saw double; and also some disturbanee of deglutition; he did not like to take food. About the second week his mind became impaired, and he was at times irrational. These somptoms continued until the third week when he regained his powers of co-ordina tion almost perfectly, and could walk with but little assistance. Though he regained his speech, he developed about this time aphasic symptoms—amnesic aphasia; he knew what he wanted, but could not conceive the word he desired. These spmptoms continuing, his general condition improved much, until the middle of the seventh week, when about two o'clock in the morning, two weeks before his death, he became comatose; his wife could not arouse him, and his breathing became stertorous. The next day in the afternoon his breathing was the same, and his appearance cyanotic; his pulse was 80 and of good volume. An autopsy was made, Drs. Dean and McPheeters being present. The specimen is of some interest, because the lesion was confined to the cerebellum; and notwithstanding its extent, the patient regained his powers of co ordination at the expiration of five weeks. The lesion is simply the rupture of blood vessels, which, by its accumulation, has produced a cavity, filled with blood, quite large in size, to the left of the fourth ventricle.

Dr. French said Dr. Prewitt stated that eighteen months ago he operated in a case similar to the one reported to-night, and removed the ovaries and tubes, and that the patient has been under his observation recently, and that she is entirely well; he wished to inquire whether or not, in his observation, recovery has been the usual result. The profession for some time has debated the question whether the removal of the ovaries and tubes, in cases like that reported, will relieve the patient from nervous symptoms. Dr. Goodell and other able gynæcologists in this country take the position that it certainly does not immediately remove those conditions, but that in some cases it ultimately does. He desired to learn Dr. Prewitt's experience in those cases that have been under his care.

Dr. Prewitt replied.—In the former case the woman had no special nervous systoms, but suffered much from pelvic pains, etc. She told me the other day she was perfectly relieved of these, but complained of flushing about the head. The other case has been operated on too recently to aid in the determination of the question, but she has been relieved of her pelvic pains. What effect the operation will have on her mental condition cannot confidently be predicted. Some 18 months ago the speaker reported a case of hysterical epilepsy, which elicited considerable trouble; some of our neurologists took issue with me, as to its being hysterical epilepsy. She had the most violent and continuous epileptiform convulsions for two days at a time. In that case the ovaries and tubes were removed; and so far as is known, she has had no convulsive attacks since. That case, manifesting nervous symptoms in an extreme degree, would certainly be in line with the inquiry of Dr. French; that patient complained more of nervous than other symptoms; there was no special evidence of inflammatory action, but there was found some cystic dsgeneration of the ovaries with their enlargement. One of them, however, presented a very peculiar appearance; its surface was almost exactly similar to that tuberous root, having a corrugated surface, with which boys in the country are familiar, and is known as the wild turnip, which has an exceedingly pungent and bitter taste. Should these epileptic troubles exist for a long time, they may induce or become

associated with central lesions; they cease to be reflex and become central, and it is impossible to predict whether the operation would relieve these long continued nervous disturbances.

Dr. Gregory said he was glad that Dr. Prewitt's observation is so limited in that direction; certainly he has a very genteel record.

Dr. Bond said.—It seemed to him that there is a disposition on the part of physicians to generalize, or to draw conclusions irrespective of the special pathological conditions that may exist in cases that call for the removal of the ovaries and tubes. He candidly believed that in the vast majority of cases in which, though there be inflammation of the tubes and ovaries, the patients would do fairly well without any operation at all. In the vast majority of cases this may be expected, and yet there are cases, in which the amount of suffering is so great, in consequence of pathological states, together with the peculiar impressibility of the nervous system of the individual, that an operation becomes imperative for the removal of the diseased structures. Should we have a case in which the ovary is prolapsed into the cul-de-sac of Douglas, and the inflammatory condition be confined to a portion of the investing surface of the ovary, or that there is no great degree of constriction or compression, that patient may go on and live comfortably, especially if she is not possessed of an unduly impressible nervous organization. If on the other hand she be possessed of a very decidedly impressible nervous system, even though the local trouble may not be nearly so great as in the other case, yet the patient's suffering will be intense and an operation called for. It may be that a constricting band (resulting from peritoneal inflammation) sets up such an amount of irritation even though the trouble be confined to a small area, that the suffering of the patient is so great that an operation is indicated. So therefore the fact should be emphasized that it is the peculiar lesion that is present, together with the peculiar impressibility of the patient, that must determine the necessity for the operation, and not the bare fact that there exists inflammation of the tubes or ovaries, for the great majority of these persons get along fairly well, and enjoy comparatively good health even though they be not removed.

Dr. Johnston said he believed within ten years laparotomies, for the removal of the ovaries and tubes by which women are unsexed, will be relegated to the same shades as the sponge tent; that laparotomies and ovariotomies and operations for pyo-salpinx, hydro-salpinx, etc., will not be performed.

Dr. McIntyre said.—When there exists a diseased ovary and its attendant suffering, and consequently an utter impossibility for such a woman to bear children, the removal of the diseased organ is then proper. Dr. Prewitt's position is unquestionably correct, and no doubt he did his patient a valuable service eighteen months ago when he removed her ovaries. There is a kindred condition to that spoken of, which should not to be forgotten. The speaker saw the analogue to that a few years ago in a young man æt. 22, who being affected with the mumps, his testicle became involved and he suffered great tortures; the testicle subsequently became atrophied and was finally removed, but before this was done the young man suffered exquisite and excruciating pain. The removal of the testicle sufficed to relieve him; its condition reminded him very much of a hardened and contracted ovary. The speaker did not believe that laparotomies will in ten years be discontinued, and as long as women have ovaries and Fallopian tubes diseased, there will be gentlemen who will be ready and willing to render them good service; and by removing their diseased organs, relieve them of their suffering. This morning he received one of the most grateful letters, that it was his good fortune ever to receive, from a lady, whose ovaries he removed the 25th of last month, and stating that two others whom she knew, were exceeding happy on the same account.

Dr. McPheeters said.—In addition to the history given by Dr. Graves, the patient had not voided his urine since the previous Sunday morning, he having died on Tuesday morning. The urine was drawn off. He died in a state of coma, having stertorous breathing for some hours before his death; the character of breathing was the Cheyne-Stokes for the last twelve hours of his life, but not as it is frequently met with in Bright's disease and albuminuria. The cause of death, no doubt, was the rupture of an artery in the cerebellum. The difference between this case and that of Judge Breckenridge, who died last week, is that in that case a large artery was ruptured, which caused death very quickly; in about ten minutes.

Dr. Broome said he believed this was an operable case; that an operation could have been made before death instead of afterwards. Some time ago this same subject was under discussion, and my venerable friend Dr. Gregory took occasion to criticise Horsely for operating in cases of cerebral hæmorrhage. Lucas Champonniere reports having trephined the skull in 24 cases for cerebral hæmorrhage and a number of these recovered. Nature tried to relieve this man, according to the history he improved somewhat, got up and went about. An operation, in my judgment, might have been performed in this case and with fair chance of a recovery.

Dr. Gregory.—I think that case illustrates the impropriety of a surgical operation, because this man was actually recovering; had recovered from the immediate effects of the effusion of blood; the paralysis had disappeared; his condition was altogether better; it was hopeful, but there was disease elsewhere, which the surgeon could not remove; had he attempted an operation he could not have gouged out the blood vessels which were already aneurismal in his skull. There was another trouble beyond that, because new symptoms showed themselves; the old symptoms disappeared, and the history of the case was far from indicating the proprietary of an operation. Although the operation may have been performed by men whose names the speaker

would not undertake to pronounce, and some may have recovered, still it is not a proper operation. If you want an operation, by all means do it and do it quick, or it may escape you; if you wait a little the patient may perhaps get well and you will lose the opportunity to operate; and if you do operate, and the patient dies, well, "he would have died anyway." That is what they say. Dr. McPheeters and Dr. Graves will bear me out in the statement that this was not a case upon which an operation should have been done.

Dr. McPheeters.—A man who would operate in that case would be a fool and a murderer.

Dr. Graves said he did not think this was an operable case. If there is any case of brain trouble which is operable it would be in the cerebellar region, because it is known that almost the entire cerebellum can be removed, without causing the death of the subject, and after a time they will regain their power of motion. This has been done frequently in dogs and rabbits and various animals; they have regained after a time, their powers of locomotion, notwithstanding the fact that the cerebellum was removed. In this case the patient regained, to a large extent, his powers of locomotion, and had not a second hæmorrhage occurred, he would probably have regained his functions entirely.

Dr. Bond.—Was the diagnosis made as to the locality of the hæmorrhage before the death of the patient?

Dr. Graves.—Yes, sir.

Dr. Johnston.—And it was in the cerenellum?

Dr. Graves.—That is what we supposed. The symptoms were so marked that it was almost unmistakable; the powers of co ordination were lacking, that is to say, he could not co-ordinate his muscular action; if he wanted to put his hand to his nose he was liable to put it anywhere else, so in walking he could not control the movements of his feet.

Dr. Broome.—I hope Dr. McPheeters will modify his statement before it goes on record, or at least before it goes into print, that a person who would operate upon such a case was a "fool and a murderer."

Dr. McPheeters.—I did not say in such a case, but in that particular case.

Dr. Prewitt said he was glad we have a certain amount of conservatims left among us. He claimed to be somewhat conservative himself, and now since there seems to be such a mania for operating in every possible direction, it is well that we do practice a little conservatism in cases similar to that referred to. He was inclined to think Dr. Gregory is right. It is possible that the lesion—that clot of blood—might have been reached by an operation through the base of the skull, but the man was 70 years old, and there was evidently very marked disease of the blood vessels so that even if the immediate trouble had been relieved, he probably would have had other trouble there soon after the operation, and there is a chance that the operation would not have relieved him; and if it had, it would probably have prolonged his life but a short time. It certainly could not have been very long. It is extremely doubtful whether it would have been advisable to operate when there was so little probability of success. Mr. Horsely goes pretty far and advises the ligature of the common carotid artery, in order to arrest cerebral hæmorrhage. Cerebral hæmorrhage is in no mean proportion of cases due to disease of the arteries, and it seems to me that an operation is a long stretch of its application. And yet there might be cases in which it would be advisable, when there was reason to believe that there was extensive disease of the blood vessels, it is possible that some cases might be benefitted by the ligature of the common carotid artery. The speaker thought it is a common conviction in the public mind that the third attack of apoplexy is fatal, not because there is anything peculiar about the third attack, but that this disease is progressive and superadded, and while a man may escape from the first or second attack, he can hardly escape the third. In the case reported the patient being 70 years of age and having other troubles, it is questionable whether the operation should have been performed.

SOCIETY NEWS.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

Medical Society of New Jersey, Long Branch, June 23 and 24.

Vermont State Medical Society, Burlington, October 15 and 16.

Mississippi Valley Medical Association, St. Louis, October 14, 15 and 16.

Tri State Medical Association of Tennessee, Alabama and Georgia, Chattanooga, October (date to be fixed).

Medical Society of Virginia, Lynchburg, October 27, 28 and 29 (subject to change).

New York State Medical Association, New York, October 28, 29 and 30.

Louisiana State Medical Society (place and date to be determined).

MEDICAL MEETINGS.

The St. Louis Medical Society holds its meetings every Saturday evening at 8 o'clock p. m., to which medical men are cordially invited.

Guhman, M.D., Rec. Secretary. L. Bremer, M.D. President for 1891.

ILLINOIS STATE BOARD OF HEALTH.

Springfield, June 6, 1891.

Dear Sir.—There is a demand, from medical teachers and young men that intend to study medicine, for a literary course preparatory to the study of medicine. This demand has been met by a few of the literary in-

stitutions in the United States, and it is hoped and believed that it will be much more generally met during the next two years. The following institutions now offer science courses for students that intend to study medicine, or that intend to teach or otherwise engage in biological work:

1. University of Wisconsin;
2. University of Pennsylvania;
3. Johns Hopkins University,
4. University of Notre Dame;
5. Yale University;
6. Cornell University;
7. Princeton University;
8. Lake Forest University;
9. North-Western University;
10. West Virginia University;
11. University of Kansas.

As must be obvious, such a course should be based on biology, and should include thorough work in this science, as well as in osteology, comparative anatomy and chemistry, with English, French, German, some Latin, clay modeling, free-hand drawing, mineralogy, mathematics through trigonometry, mechanics, logic, general and pharmaceutical botany, and (in the last year) psychology.

It is of course understood that botany, being a branch of biology, should have a prominent place in the course.

The catalogues of the universities mentioned contain the lists of studies offered in their science courses.

Such a course should extend over four years. This will involve no loss nor waste of time to the student. The Illinois State Board of Health now requires that students of medicine matriculating in the Autum of 1891 or therafter must study medicine four years and must attend three courses of lectures,—no two in the same twelve-month, in order to obtain a license to practice in Illinois. This rule will apply also in some other states. The Illinois State Board will, however, recognize a thorough course in science, such as indicated above, as equivalent to two year's study and one course of lectures, thus enabling the student to enter the second class in the medical college. This makes the full time of study six years in the literary and medical schools, or two years less than is required of the student pursuing a strictly classical course. Not only will time be thus saved, but the science student will be much better prepared to enter the second course of the medical school than will the classical student to enter the first year.

The Illinois State Board wishes to make up a science course that can be recommended to any college wishing to adopt such a course, and having but little time to study the subject, I desire to enlist your aid and have your advice in the matter so as to make the course as practical and as beneficial as possible. Will your faculty, therefore, make out such a course as it thinks best for the purpose, and send it to the Secretary of the Board?

The demand from medical teachers and from students of medicine having been met by some universities, must be met by all that would continue to hold a high rank as educators of young men for the work of life.

Respectfully,

JOHN H. RAUCH, M.D., Secretary.

Such a course is also the best preparation for the study of Veterinary Medicine.

SELECTIONS.

REMARKS ON DIGITALIS AND ITS SUBSTITUTES.

BY JAMES K. CROOK, M.D.,

Instructor in Clinical Medicine and Physical Diagnosis, etc.

Read before the Clinical Society Jan. 31, 1891.

The cardiac tonics or drugs which are believed to possess the power of regulating and increasing the force of the cardiac contractions, may be properly limited at the present time to six in number, viz., the time-honored digitalis, the salts of caffeine, strophanthus, sparteine, convallaria, and adonis vernalis. It is not my purpose this evening to consider these different agents in detail, but to refer to their action on the circulatory apparatus and their comparative value in the treatment of diseases of the heart. It may seem trite to refer to so well known an agent as digitalis, yet there are certain points in connection with this drug which may well engage our attention. Besides, a few moments' consideration of its physiological action, therapeutical indications, etc., will enable us the better to appreciate a description of the actions and uses of its substitutes. Digitalis is still our main reliance in the treatment of the various conditions of the heart involving a failure of its contractile power and an irregularity of its rhythm, although it has a number of disadvantages, and we shall not infrequently find it necessary to abandon its use in conditions where the heart is still in urgent need of support. It is under these circumstances that we shall find the principal application of the other agents of this group. It is my opinion that not a few of the failures from digitalis are due to the defective character of the preparation used. Much of the digitalis in our shops is cultivated and put up by the Shakers. There is good reason to believe that these domestic leaves are almost if not entirely inert. It is the duty of the cautious practitioner, in ordering the infusion, not merely to specify "English digitalis" on his prescriptions, but, unless he is well acquainted with his apothecary, to have it prepared under his own supervision. If a quick action is desired, the infusion should always be prescribed; if not, the tincture may be used, or better still, the *abstractum digitalis*, United States Pharmacopœia, which I believe to be an unjustly neglected preparation.

What is the action of digitalis on the heart and circulation, as demonstrated both by experimental therapeutics and clinical observation? Firstly, it slows the

action of the heart, not at once, but sometimes as late as two or three days after the initial dose is given. I have repeatedly demonstrated this fact to my entire satisfaction. Secondly, it increases the force of the cardiac contractions. In other words, it prolongs the diastole, thus increasing the period during which the organ is receiving its own nutrition, and prolongs also the period of rest; and it increases the ability of the heart to empty itself and propel the blood forward. It is not within our province this evening to explain the exact physiological method by which the drug exerts this influence, but we believe no facts in clinical medicine have been more clearly shown than these. It is probable that to this effect on the force of the heart's action is due, to some extent, the well-marked rise in arterial tension, although this may be partially accounted for by the influence of the drug on the vaso-motor center and on the muscular coats of the arteries. In the light of these data the therapeutical indications and contra-indications of digitalis can be laid out on rational grounds. Generally speaking, it may be said to be of advantage in all conditions of weak and irregular heart with or without cardiac dropsy and with or without organic disease of the heart. In *mitral stenosis*, for example, the prolongation of the diastole allows a longer period for the blood to pass through the narrowed auriculo-ventricular opening; as a consequence the ventricle has a larger quantity of blood to contract upon, and, the force of the ventricle being increased, a far greater quantity of blood is thrown out with each ventricular contraction, and a generally increased *vis a tergo* supplied to the circulation. The drug should never be given in simple hypertrophy, nor in aortic stenosis with compensation. It is believed that digitalis has led even to fatal consequences in the latter condition. It has also been objected to in aortic regurgitation, and for this very plausible reason, viz., that in prolonging the diastole of the heart it increases the period when the reflux is taking place; the regurgitation is more complete; at the same time, by its contracting power on the smaller blood vessels, an increased *vis a fronte* is produced which even more augments the amount of regurgitation. Ringer, however, is in favor of disregarding the lesion which may be present, and prescribes the drug in accordance with the *totality* of the symptoms. It has certainly been my experience that digitalis acts with remarkable promptness and value in some cases of aortic regurgitation, and I have been led to the belief that the rational symptoms furnish much clearer therapeutic indications than do the physical signs.

Digitalis is a valuable adjunct in the treatment of those old cases of pulmonary emphysema with great dyspnœa and a tendency to œdema of the lungs, as shown by the presence of moist rales and excessive dyspnœa. It is of little use, however, in those extreme cases of pulmonary congestion and œdema where immediate danger is present. It is much wiser under these circumstances to rely upon an active heart stimulant, such as the carbonate of ammonia or brandy. Digitalis cannot be said to be cumulative, in the ordinary acceptation of the term, although we may bring on toxic effects if we administer the drug too rapidly and in too large doses.

As before stated, there are certain circumstances under which the use of digitalis is not advisable or cannot be taken. Some persons cannot stand even small doses, owing to its irritating effects upon the gastric mucous membrane. Others acquire a tolerance so readily that it soon loses all effect. We are thus not infrequently compelled to look around for some agent which will take the place of digitalis, but which does not possess its disadvantages. It is the opinion of the writer that these indications are best fulfilled by *caffeine* and its salts. This drug is obtained from the dried seeds of *Caffea Arabica*, and probably also from the dried leaves of *Camellia Thea* to a great extent. The caffeine of commerce is chemically identical with theine. Perhaps the best salt of caffeine is the hydrobromate—the so-called citrate, which is used so commonly in nostrums, being a mere mixture. The most important function of caffeine, and the only one we shall consider this evening, is its action on the circulatory apparatus. It is to Huchard and Sée that we are largely indebted for our present knowledge of its value in cardiac affections. The physiological action of caffeine is believed to be exerted chiafly upon the cardiac muscle and upon the muscular coats of the arterioles. In adequate doses the heart's action is perceptibly slowed, the diastole prolonged, and the individual contractions increased in force. Arterial pressure is also raised to some extent, and the urinary flow is increased. If given in excessive doses, caffeine will produce toxic effects, in which the heart becomes irregular and feeble, blood pressure is lowered, respirations becomes frequent and shallow, and death ensues from paralysis of the respiratory muscles. Caffeine is undoubtedly a very valuable cardiac tonic and stimulant, but, in order to obtain its good effects, considerable doses must be administered. It has seemed to me that at least fifteen or twenty grains a day are required to maintain a proper action. It is useful in the same conditions in which we employ digitalis, but it has the advantage of acting more speedily than that drug, and does not cause unpleasant gastric symptoms. It has seemed to me to be of special advantage in advanced stages of cardiac dropsy with renal involvement and threatened suppression of the urine. Free diuresis is generally produced within twenty-four hours. So far as I know, there are no contra-indications to the use of caffeine.

Strophanthus is obtained from the seeds of *Strophanthus Hispidus*, an African plant, from which is derived the Kombe arrow poison of the natives. Its active principle is strophanthine, a glucoside. Its action on the heart is very similar to that of digitalis, lengthening the interval between the pulsations, increasing the force of the contractions, and causing a certain amount of rise in the blood pressure. It does not, however, much affect the calibre of the arterioles, and conse-

quently does not much increase the work of the heart. Its physiological action clearly entitles it to a place in the group of cardiac tonics. Strophanthus may be used in cases where digitalis is indicated, but it cannot be said to be the equal of that drug. Personally I have had the opportunity to note the effects of strophanthus in only three instances, in two of which it produced satisfactory results. It may be given in cases where digitalis fails or is not tolerated. It seems to act well in combination with digitalis in advanced cases of cardiac dropsy, although it cannot be said to be a diuretic in the true sense of the term. The increase in the urinary flow following its use is probably not due to any action on the renal epithelium, but to its stimulating effect upon the heart. Prof. Fraser, to whom we are indebted for much of our knowledge of strophanthus, recommends the tincture in doses of one to ten minims. It has seemed to me, however, that Fraser's maximum dose is too large, and we will probably find the proper maximum limit to be not above five to six *minims*. Strophanthine may be given in doses of one fiftieth to one-hundredth of a grain hypodermically, but I think this preparation will not occupy a high place in therapeutics.

Convallaria majalis, or lily of the valley. A decoction prepared from this herb has long been in use among the Russian peasantry in the treatment of dropsy. Two alkaloids have been isolated by Waltz: *convallarine*, a simple resinous purgative, and *convallamairine*, on which depend its virtues as a cardiac tonic. Convallaria slows and strengthens the heart contractions, probably by a direct effect upon the cardiac muscular tissue, and it also induces a rise in arterial tension, but is comparatively inert with reference to the other organs and tissues of the body. The most eligible preparation is the extract, which may be given in doses of five to fifteen grains. It is said to be indicated in disordered rhythm of the heart with palpitation, and vehement action dependent upon disordered function of the pneumogastrics, narrowing of the mitral orifice, and insufficiency of the mitral valves with stasis of the venous circulation, and in all cardiac affections accompanied by dropsy. Germain Sée considered it superior to digitalis, but he is alone in this opinion. It has the advantage over digitalis of producing no gastric distress. My personal experience with convallaria has not been favorable. I have used it considerably in conditions where digitalis was indicated, but have lately abandoned its use altogether in favor of caffeine and strophanthns. The drug seems destined to become obsolete within a few years.

Sparteine is obtained from the tops of *Sarothamnus Scoparius*, or broom. It was described as long ago as 1856 by Stenhouse, but was not thoroughly investigated until 1883. It is a liquid alkaloid, and combines readily with acids to form salts. The alkali itself is entirely insoluble, but the sulphate is crystallizable and dissolves freely in water. The dose of this salt, which is the one commonly administered, is one-half to two grains. The salts of sparteine are better, but not irritating to the stomach, and have the apparent power of increasing the appetite. Unlike digitalis, sparteine acts in an hour or two after being taken, and its characteristic impression on the heart is maintained from twelve to twenty-four hours by a single dose. According to Prof. Bartholow, this agent more truly deserves the name of heart tonic than any other agent. Irregularity and inequality in the force of the contractions are said to be almost immediately overcome, and the action is lasting as well as thorough. It is said to be especially useful in weakening of the light heart and insufficiency of its valves, and in the organic and functional derangements of the mitral valve. The drug seems to be especially useful in inaugurating the action of digitalis before that drug has had time to act. It is not cumulative in its effects, and no contra-indications are known.

Adonidine is the least known of the recent cardiac tonics, and can scarcely yet be said to have passed the experimental stage. The preparation is a glucoside, obtained from *Adonis vernalis*, and the dose for administration is from one-eighth to one-half grain in compressed pellet or granule. It has been studied by Babnow, but the active principle was isolated by Cervallo, of Strassburg. Adonis slows the heart, lengthens the intervals between the cardiac contractions, and raises arterial pressure by contracting the arterioles. It is said also to possess some diuretic power. It is employed in cases where digitalis cannot be taken, and to form combinations with that drug when their actions are supplementary.

To sum up, we may say that while many claims have been made for other agents, digitalis still remains our most generally useful and reliable cardiac tonic, and when such an agent is indicated it should always have the first trial. For various reasons, however, this drug is often inapplicable, and we are obliged to seek recourse in some other agent. In the light of our present knowledge caffeine seems best to meet this indication, followed in order by strophanthus and sparteine. Convallaria seems to be almost useless, while Adonis is still on trial.

Bibliographical Note.—In reviewing the foregoing subjects, the author would express his acknowledgments to the works of Bartholow, Ringer, Wood, Hare, Germain Sée, Fraser, Fothergill, and to the United States and National Dispensatories.—*Post-Graduate.*

NAMES OF DISEASES.

It is with regret that we notice the rapid growth of the number of personal or proper names in the nomenclature of medical science. As a table of reference for readers, however, we append the following from the *Journal de Medicine*, Paris:

Addison's disease—maladie bronzee—disease of the supra-renal capsules.

Albert's disease—fungoid mycosis.

Aran—Duchenne's disease—progressive muscular atrophy.

Argyll-Robertson pupil—one which changes in accommodation, but does not respond to light.

Astley Cooper's hernia—femoral hernia with a multicular sac.

Barton's fracture—one of the lower end of the radius involving the joint.

Basedow's disease—exophthalmic goitre.

Baudin's law—antagonism of tuberculosis and malaria.

Bazin's disease—buccal psoriasis.

Beclard's disease—hernia through the saphenous opening.

Bell's palsy—paralysis of the seventh nerve.

Boyer's cyst—sub-hyoid cyst.

Bright's disease—albuminuric nephritis.

Brown-Sequard's combination of symptoms—hemiparaplegia with hemianesthesia of the opposite side.

Cazenave's lupus—lupus erythematodes.

Charcot's disease—amytrophic lateral sclerosis.

Charcot's joint—the enlarged joint of locomotor ataxia.

Cheyne-Stokes breathing—ascending and descending frequency of respiration.

Cloquet's hernia—perineal hernia.

Colles's fracture—one of the lower third of the radius.

Colles's law—that of non-infection of the mother by her syphilitic infant at the breast.

Corrigan's disease—aortic insufficiency.

Corrigan's pulse—water-hammer pulse—the pulse of aortic regurgitation.

Corvisart's facies—asystolic facies.

Cruveilhier's disease—simple ulcer of the stomach.

Cruveilhier's paralysis—progressive muscular atrophy.

Conder's glaucoma—simple atrophic glaucoma.

Dressler's disease—paroxysmal hemoglobinuria.

Dubini's disease—electrical chorea.

Duchenne's disease—locomotor ataxia.

Duchenne's paralysis—pseudo-hypertrophic paralysis.

Duhring's disease—dermatitis herpetiformis.

Dupuytren's disease—retraction of the palmar aponeurosis.

Dupuytren's hydrocele—bi-locular (*en bissac*) hydrocele.

E. Wilson's disease—universal exfoliative dermatitis.

Eischtedt's disease—pityriasis versicolor.

Erb's palsy—paralysis of the brachial plexus.

Erb-Charcot's disease—spasmodic tabes dorsalis.

Fouchard's disease—alveolo dental periostitis.

Friedreich's disease—hereditary ataxia.

Gerier's disease—paralytic vertigo.

Gibbon's hydrocele—that coincident with hernia.

Gibert's pityriasis—pityriasis rose.

G. de la Tourette's disease—motor incoordination.

Goyrand's hernia—inguino-intestinal hernia.

Graefe's sign—failure of the upper lids to follow the eyes in descent.

Grave's disease—exophthalmic goitre.

Guyon's sign—renal ballotement.

Harley's disease—paroxysmal hemoglobinuria.

Heberden's rheumatism—that of small articulations with nodosities.

Hebra's disease—polymorphous erythema.

Hebra's pityriasis—rubra chronica.

Hebra's pruriga—idiopathic prurigo.

Henoch's purpura—purpura with abdominal symptoms.

Hesselbach's hernia—femoral hernia with a multilocular sac.

Hippocrates's facies—that of agony.

Hodgkin's disease—adenitis; pseudo-leucocythemia.

Hodgson's disease—atheroma of the aorta.

Huguier's disease—fibromyomata of the uterus.

Hutchinson's teeth—notched teeth of hereditary syphilis.

Hutchinson's trio of symptoms—notched teeth, interstitial keratitis and otitis of hereditary syphilis.

Jacksonian epilepsy—focal epilepsy.

Jacob's ulcer—cancroid ulcer.

Kaposi's disease—xerodermia pigmentosa.

Kopp's asthma—thymic asthma—spasm of the glottis.

Kronlein's hernia—inguino-properitoneal hernia.

Laennec's cirrhosis—atrophic cirrhosis.

Landry's disease—acute ascending paralysis.

Laugier's hernia—that across Gimbernat's ligament.

Leber's disease—hereditary optic atrophy.

Levert's law—marginal insertion of the umbilical cord with a small placenta.

Littre's hernia—diverticular hernia.

Ludwig's angina—infectious phlegmon of the sub-hyoid region.

Malassez's disease—cyst of the testicle.

Meniere's disease—lahyrinthine vertigo.

Millar's asthma—laryngismus stridulus-spasm of the glottis.

Morrand's foot—one with eight toes.

Morvan's disease—analgesic paralysis of the extremities.

Paget's disease—pre-cancerous eczema of the breast.

Paget's disease—hypertrophied deforming ostitis.

Parkinson's disease—paralysis agitans.

Parrot's disease—syphilitic pseudo-paralysis.

Parry's disease—exophthalmic goitre.

Pavy's disease—intermittent albuminuria.

Petit's hernia—lumbar hernia.

Pott's aneurism—aneurism by anastomosis.

Pott's disease—ostitis of the vertebra.

Pott's fracture—fracture of the tibia.

Raynaud's disease—symmetrical gangrene of the extremities.

Reclus's disease—cystic disease of the breast.

Richter's hernia—parietal enterocele.

Rivolta's disease—actinomycosis.

Romberg's sign—ataxic swayi g in the dark or with closed eyes.

Rosenbach's sign—abolition of the abdominal reflex.

Soesnich's ulcer—infectious ulcer of the cornea.

Stellwag's symptom—retraction of the upper eyelid.

Stokes's law—paralysis of muscles subjacent to inflamed serous and mucous membranes.

Storck's blenorrhea—that of the respiratory passages.

Sydenham's chorea—chorea minor—common chorea.

Thomsen's disease—muscular spasm on voluntary movement.

Thornwald's disease—inflammation of the pharyngeal tonsil.

Velpeau's hernia—femoral hernia in front of the vessels.

Volkmann's deformity—congenital tibiotarsal luxation.

Wardrop's disease—malignant onychia.

Weil's disease—abortive typhoid fever with jaundice.

Werlhoff's disease—purpura hemorrhagia.

Westphal's sign—abolition of the knee jerk.

Willard's lupus—tuberculous lupus.

Winckel's disease—cyanosis of the new-born.

—*Medical and Surgical Reporter.*

GLIMPSES OF BACTERIA.

Germs which Produce 281,500,000,000 Living Beings in Two Days.

Far down in the scale of plant life is a certain great group whose individuals are spoken of in a general way as micro organisms, or microbes or germs. One great family of the group of micro-organisms is called "yeasts." The commercial value of the single yeast plant may be estimated from the fact that the cake of yeast costing the consumer 1c contains many million plants.

When these yeast plants, well distributed through the dough, are set in a warm place, they begin to grow, and in order to grow they must consume food. Now, the flour and salt and water in the dough are very choice viands for these little plants; they assimilate some elements, and set free, among other things, carbonic acid gas. This occupies much more space than the carbon and oxygen occupied in the flour, and the gas as it expands "rises" the dough, rendering it light and porous. At the right moment off goes the whole mass to the oven, where the lives of the myriad budding plants are soon extinguished; and when we eat the bread, we eat the yeast cells along with the fragments of the cells of the wheat or rye of the flour.

Another familiar group of micro-organisms are the molds; and still another group of lowliest, tiniest, plants closelyallied to the fungi, are the bacteria—elemental organisms so simple in structure as to be almost completely represented by lines and dots, but endowed with such limitless powers of reproduction as almost to shame the multiplication table. Uuder the most powerful lenses they are seen to consist of a minute mass of granular protoplasm, surrounded by a thin structureless membrane.

When we put them under favorable conditions of growth and give them food enough, they may be seen to divide across the middle, each portion soon becoming larger, and again dividing, so that it has been calculated that a single germ, under favorable conditions, might at the end of two days, have added to the world's living beings 281,500,000,000 new individual bacteria. Indeed, if this sort of thing were to go on for a few weeks unhindered, pretty much all the oxygen, carbon, hydrogen and nitrogen available for life purposes would be used up, there would be a corner in life stuff, and even the master, man, would be forced to the wall. But numerous causes arrest their spread, and the bacteria, in the long run, are held closely within bounds the world over.

Indeed, life goes hard with many forms, and but for a curious provision for their preservation under adverse circumstances it is likely that many species would soon die out.—*Exchange.*

Nitrite of Amyl in Chloroform Poisoning.—I desire to add another case of chloroform poisoning treated successfully by the inhalation of nitrite of amyl. The facts are as follows:

At about 7 p. m., of March 13, 1890, I received a telephone message to come hastily to Mr. P——, who had taken chloroform and could not be awakened. The distance was abont one and a half miles and I stopped at a drug store to procure five drop pearls of nitrite of amyl. Time of arrival was about half an hour after being called. I found the patient in a profound stupor, respirations shallow, pulse rapid and feeble. A three ounce bottle was found in his pocket, half full of Squibb's chloroform. A telephone message to the druggist revealed the fact that he had purchased three ounces of the drug some two hours before. He had swallowed apparently about one and a half ounces. Air was at once freely admitted to the room and to the patient, and a pearl of the nitrite given by inhalation. The effect was immediate and apparent. After the lapse of fifteen minutes, pulse again became rapid and feeble, and another pearl was used, with the result of deepening the respirations and increasing the vigor of the pulse. The same thing was repeated at lengthening intervals eight or nine times. Meanwhile hypodermic injections of atropia were twice giveu, and towels rung out of cold water dashed upon the chest. After four hours the patient awoke from his stupor, and in another was out of danger. Recovery was somewhat slow, owing, no doubt, partly to the great destruction of red blood corpuscles, as evidenced by the extreme icteric hue of the skin, which persisted for two weeks. In my judgment this patient could not possibly have survived without the use of nitrite of amyl.—E. Mammen, M.D., in *Medical Record.*

Physicians and other readers of the Review should not fail to examine its advertising pages, where much that may prove of interest will be found.

Sodium Nitrite in Angina Pectoris.—Dr. T. F. Pearce, Southsea, writes to the *London Lancet* that where attacks of angina pectoris occur very frequently, but are of a camparative mild nature, he has had far better results with sodium nitrite than with nitrite of amyl. It is more reliable and more lasting in its effects. He says that 5 grain doses may be given every five or six hours without hesitation; but we may point out that some samples of sodium nitrate are impure, and our nosology of the remedy has been founded on the impure salt. Nitrite of amyl and nitro-glycerine are more rapid in their action than sodium nitrite, and are to be preferred when the symptoms are alarming.—*Cincinnati Lancet-Clinic.*

PUBLISHERS' NOTICES.

Medical Books.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather binding. Published by Birmingham & Co. 1882. List price, $5.00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

J. H. Chambers & Co.,
914 Locust Street, St. Louis, Mo.

Sunday Excursions.

A St. Louis, Keokuk & North-Western Railroad train will leave Union Depot, St. Louis, every Sunday morning (beginning June 21st) at 7:30 for Quincy, Ill., and intermediate points. Round trip tickets at very low rates. Ticket offices, 112 N. Fourth Street, and Union Depot.

Christian Endeavor Convention.

The Burlington Route has made one fare for the round trip between all points on its lines and Minneapolis for the above named convention. Tickets good going July 7, 8 and 9 and returning July 12 to 15, inclusive. Parties desiring to remain longer than the limit named for the convention may have additional time by depositing tickets with agent at Minneapolis.

For full information regarding rates and arrangements apply to C. L. Grice, City Passenger and Ticket Agent, 112 N. Fourth St.

Low Railroad Rates to the West.

The Burlington Route have on sale, at reduced rates, round trip tickets to Denver, Colorado Springs, Manitou, and all tourist points in Colorado, Utah, Idaho, Montana, Wyoming, the Dakotas and Alaska. Call at the City ticket office of the Burlington Route, 112 N. Fourth St., for rates and general information. Do not purchase your tickets until you have seen our agent.

How to Keep Cool in Summer.

Call at the office of the Burlington Route, 112 N. Fourth St., and purchase a round trip ticket to one of the following cool resorts: Spirit Lake, $23.00; Battle Lake, $33.10; Minnetonka, $26.35; Minneapolis and St. Paul, $25.60. Reduced rates are also made to all the prominent resorts in the North and Northwest. All tickets good to return until October 31.

The Southwestern Limited to New York and Boston, via the "Big Four Route," is the "fastest train in America." The only line from St. Louis via Lake Shore & Michigan Southern Ry. landing passengers in Grand Central Station, New York City. Leaves St. Louis 8:05 a. m. daily; vestibuled from end to end; through sleeping car; cafe and dining car service. Ticket offices, corner Broadway and Chestnut streets, and Union Depot, St. Louis, Mo.

Round Trip Rates East.

The Ohio & Mississippi Ry. has now on sale at its St. Louis offices, round trip tickets to the following points at low excursion rates:

Oakland, Deer Park and Mountain Lake Park, Md.; Niagara Falls, Chautauqua, Jamestown, Lakewood and Mayville, N. Y.; White Sulphur Springs, Berkeley Springs, Capon Springs, Kanawha Falls, Red Sulphur Springs and Sweet Springs, W. Va.; Healing Springs, Jordan's White Sulphur Springs, Luray Caverns, Millboro, Norfolk, Old Point Comfort Orkney Springs, Roanoke, Rock Enon Springs, Staunton, Virginia Beach, Warm Springs and Christiansburg, Va., Bristol, Tenn.; Asheville, N. C.; Bedford Springs, Pa., and many other points East, Northeast and Southeast.

These tickets are good for return until October 31.

The Ohio & Mississippi Ry. is the direct route to all the above points, many of which are directly on the line of our through car routes to New York, enabling our passengers to reach them without change of cars.

For detailed information as to rates, routes, limits of tickets and stop-over privileges, call on or address the undersigned.

A. J. Lytle,
Gen'l Western Pass'r Agent, O. & M. Ry.,
105 North Broadway, St. Louis, Mo.

ORIGINAL COMMUNICATIONS.

GONORRHŒA AND ITS RATIONAL TREATMENT.

BY GEORGE WILEY BROOME, M.D., ST. LOUIS.

Read before the St. Louis Medical Society at St. Louis, June 13, 1891.

I propose to present this subject briefly summarized in the following propositions:

1. No valid argument can to-day be urged against the generally accepted fact, that the pus resulting from certain urethral inflammations, is capable, if duly applied, of producing similar inflammations in another person. This being granted, the natural inference and logical conclusions must be, that some specific virus is incorporated in the experimental pus. The only obstacle to the universal adoption of this conclusion is, that some forms of urethral suppuration do not appear to be contagious; this may be true, and yet the doctrine enunciated proves, that specific inflammations, under favorable circumstances, will inevitably produce their like. Non-specific pus on sound skin, even if inoculated, appears to be innocuous, but if the pus of gonorrhœa is applied to the conjunctiva, a very severe form of inflammation is promptly produced; and the pus generated by this inflammation possesses apparently the same contagious properties. Notwithstanding this peculiarity, the virus of gonorrhœa does not always enter the circulation, the affection usually remaining local. Experimental researches render it almost certain, that the specific virus of gonorrhœa consists of a micrococcus, *i. e.*, gonococcus. It is even stated, that this organism has been found in the secondary joint-inflammations, as well as at the site of the original lesion; these facts, therefore, forbid us to regard gonorrhœa as a purely local affection. Pathogenic microbes by their amœbic character, migrate through the walls of the urethral membrane, and enter the blood. The disease is, to that extent, infective and constitutional. Whilst the constitutional effects, beyond fever, are not notable, yet the fact that such constitutional symptoms are produced, is evidence sufficient to prove that gonococci do pass beyond the walls of the urethra.

2. In contemplating a genuine case of gonorrhœa, its pathology must be regarded as the effect of the invasion of specific micro organisms—the suppurative inflammation being caused by the action of the gonococci, the pus-microbes, upon the mucous surface of the urethra, and the transformation of leucocytes and embryonal cells into pus-corpuscles—by the same cause. The brilliant results which have been obtained by the antiseptic treatment of wounds render it exceedingly probable, that all suppurating diseases are caused by living micro-organisms. In other words, a true inflammation is always caused by the presence of one or more kinds of pathogenic microbes. In gonorrhœal inflammation the presence of a specific micro-organism has been demonstrated, and its etiological relations established by cultivation and inoculation experiments.

3. The action of pathogenic bacteria on the tissues is two-fold. In the first place, they abstract from the surrounding structures a part of their essential constituents; and, in the second place they produce the decomposition of albuminoid substances; from whence results the production of ammonia and its derivatives. This condition, together with an inability on the part of the inflamed urethra to expel *all* of the urine voided from the bladder, and the chemical changes taking place in the detained urine tend to macerate, as it were, the urethral mucous membrane. In consequence of this pathological process there results a thickening of the mucous membrane by infiltration into the sub-mucous tissue; which, if abundant, subsequently gives rise to cicatricial contraction and the formation of strictures.

4. Basing the treatment of a genuine case of specific urethritis upon the pathology thus briefly outlined, the indications for treatment must, of course, be followed strictly, and, indeed, solely on antiseptic methods.

5. Instead of attempting at the outset of treatment, to render the urine of the patient alkaline, as was the practice formerly, quite the opposite course is recommended; viz, to irrigate the urethra and bladder with an acid. This is done by means of Lindenschmidt's urethral irrigator and irrigating dilator, attached to a syringe capable of throwing a continuous solution of benzoic acid. Besides bathing the entire penis in hot water several times daily, the patient is subjected to no change of treatment until after the lapse of several days; then the urethra is insufflated with about 5 grains of the pure substance of methyl-violet—which substance appears to penetrate the urethral walls, and seizing upon the deeply infiltrated specific micro organisms, eventually destroys them.

Many cases, of the acute form of the disease, have been promptly cured by these simple measures.

6. In the chronic form of the disease, the bladder should be frequently irrigated with a warm solution of benzoic acid; and if the posterior portion of the urethra is found to be irritable, 10 to 20 drops of a 25% solution of nitrate of silver in boro glyceride is applied to the affected parts; and repeated, if necessary, at intervals of several days. But the suggestion carrying with it the greatest value relative to the treatment of deep urethral morbid processes following either gonorrheal inflammation, masturbation, excessive sexual excitement, or any other cause which has brought about functional impairment of the membranous urethra, is that relating to the effect of decomposed urine, which has been retained in the bulbous portion, in consequence of its inability to expel all that is voided through it at each act of micturition.

I am, perhaps, in a position to state with some considerable degree of confidence that in some cases where

no other disease is present, than simply an inelastic urethra, in which the deep mucous membrane has undergone the maceration described, may present all the phases of a a hopeless neurotic, and yet be completely restored by only overcoming this one, apparently, trivial condition.

If this fact has ever before been noted and published, it has escaped my observation.

I have personal knowledge of several persons thus afflicted who have passed through the hands of many physicians, surgeons and many of the specialists.

The cases were diagnosticated as follows: One spermatorrhœa and spermatophobia; another, nervous dyspepsia; another, gleet; another, locomotor ataxia; another, sexual neurasthenia; another, cerebral softening. None of the cases which were thus diagnosed, and subsequently treated by me for the conditions thus described, elicited the virile reflex, (a phenomenon which has been given wide publicity of late) either after or before recovery; although the sexual appetite was never entirely absent, and during the treatment grew stronger with the patient's improvement; hence I have been led to distrust the value of that discovery, as a diagnostic sign; or at all events, I do not think, the virile reflex can be regarded uniformly a reliable and constant test in this class of cases.

There are few morbid conditions, however, which are so trying to the patients, or so embarrassing to the attending surgeon, as the cases ordinarily designated the genito urinary neuroses.

Physicians, we doubt not, are more often consulted regarding functional nervous derangements of the genito urinary tract, than for the actual disease upon which they depend; and in the event the *locus invasionis* is not readily disclosed, one of the reflex neuroses is conveniently substituted, and the patient, already neurotic, feels greatly relieved, for the time being.

Chordee, the painful concomitant in gonorrhœa,a pathological condition which I think demonstrates the presence of the specific microbial poison outside of the urethra and in the body of the penis, is surely produced by the process now described as phagocytosis. The corpus cavernosa is rendered, at certain points, inextensible in consequence of the infiltration of leucocytes, etc., a condition brought about by the presence of gonococci, which have migrated through the walls of the urethra and colonized in some of the trabecular spaces in the cavernous body. I am thoroughly impressed with the belief that this is the true pathology of chordee; and that in all cases of gonorrhœa the inflammatory infiltration of the disease, together with the local focus is beyond the reach of any of the ordinary therapeutic agents applied by the injection methods heretofore pursued. My own conclusion, after very extensive observation is, that we have never really succeeded in *curing* gonorrhœa alone and independent of the action of leucocytes and other cells in the process, designated by Metschnikoff as phagocytic, *i. e.*, removing dead material resulting from inflammation and the destruction or digestion of pathogenic micro-organisms. I believe that urethral injections, as hereto used, accomplish nothing more than simply to act as detergents to the urethral mucous membrane only.

The remedy which I propose is applied in the form of a powder; besides exerting a definite germicidal action, it passes at once through the walls of the urethra, and permeates completely all of the tissues of the penile organ. I have observed no hurtful effects whatever to follow even the application of the pure substance of methyl-violet. The treatment is essentially rational, and certainly produces exceedingly satisfactory results.

REPORT OF SECRETARY OF STATE BOARD OF HEALTH.

To the Honorable State Board of Health:

GENTLEMEN.—I have the honor to present the following report for your consideration:

PUBLIC HEALTH.

In addition to the current and ordinary causes of sickness and death commonly operative among the people of this State, two marked elements of danger to public health have made themselves especially manifest since the date of the last meeting, one, pandemic influenza, which affected more or less almost the entire population, and which served to noticeably swell the death rate during the winter and spring months, from affections of the nervous system and respiratory and circulatory organs; the other one, smallpox, which occurred in a number of places in the State where centers of infection were developed, and which were only eradicated after having caused a considerable degree of alarm, some disturbance of social and business relations, with some loss of life.

No accurate information is at hand to show just how many centers of this kind were developed, where the disease came from, how many people were affected, how many died, what measures were taken to stamp it out, or what the cost in money of the appearance of the disease was to the community concerned, for the reason that the local sanitary organization of the State is in a chaotic condition, and but few of the smaller communities, or the counties, are prepared to deal promptly, efficiently, and economically with such contingencies.

The legislation so much needed in this respect and urged by the Board at the last session of the legislature, as at former sessions, failed, for what reason does not clearly appear.

Compulsory organization by towns and counties is the first step necessary to effective sanitary work; and as a Board, we are almost powerless to accomplish much of value to public health until competent local help is secured in this way.

MEDICAL PRACTICE AND REGISTRATION.

Certificates have been issued to graduated physicians as follows: In January 23, February 32, March 120, April 98, and in May 44.

One midwife was registered and four duplicate certificates were issued to physicians, making a total of 322.

This is somewhat of an increase over former years, and indicates to some extent the pressure for graduation brought to bear on medical schools by students in anticipation of extended courses of study and stricter requirements in future.

The applications for examination by the Board, numbering about one dozen, which I herewith submit for your approval, and which is a considerable increase over any former year, also serves to sustain this view.

A considerable number of applications for registration based on diplomas have been referred by me to your honorable body since the last meeting for consideration and action, the papers in the several cases being submitted herewith.

Some of these cases present the feature of residents of other States having come here, and upon registration on demand being declined, have declared their intention to practice in Missouri whether registered or not, thus manifesting their disregard of the law.

The opinion rendered by the Supreme Court last February in the Hathaway case, is valuable to the Board in cases such as have been instanced, as the Court declares that one who comes to this State and begins practice without a certificate, thus knowingly bidding defiance to the law, is not entitled to one, such conduct being evidently held unprofessional or dishonorable, inasmuch as it indicates a deliberate and intentional purpose to violate the law.

Several holders of Board certificates have been summoned for a hearing before you in accordance with Section 6878, which authorizes the revocation of certificates for cause after giving the accused an opportunity to be heard in his defense. In these cases there exist the elements of immorality and criminality, and the papers in regard to them are herewith submitted for such action as may be deemed by you proper and judicious.

With the marked accession to the number of midwives observable during the last decade, probably due to the ease with which they could be graduated, and to the difficulty of making a living in any other pursuits, there has unquestionably been developed to a marked degree a criminal phase of the business that should engage the close attention of the local police and health authorities in every city to preventor suppress it as much as possible.

The demand for services of a criminal kind is, no doubt, extensive, which too often meets a corresponding response, but the power of the State Board is limited and, alone, cannot avail to accomplish much needed changes in this respect. A time license, or form of certificate renewable after a certain period only upon satisfactory evidence of good professional character, might, however, prove of some advantage.

The reputable midwives can accomplish much good to themselves, and to the public, by organizing their number into an association, some of the objects of which should be to draw the line between those who practice legitimately and those who do not, to improve themselves in the knowledge of their profession, etc.

The proposed three-years' requirements—no legislation having been afforded by the General Assembly—as was requested by the Board last January, in definition of the phrase "medical colleges in good standing," as it occurs in the statutes relating to medical practice, the duty remains with the Board to consider and determine the matter of additional educational requirements as conditions of graduation on the part of medical colleges in the interest solely of the general public and medical profession of the State; for, as I conceive our functions and duties, as public officials, the question should be settled without reference to the wishes one way or the other of the medical colleges, which are private institutions, operated possibly in some measure for the personal or professional prestige, preferment or profit of those who may conduct them, and whose narrow interests would often naturally clash with the higher and broader interests of the public and the profession which we are designated to represent and subserve in this Board. As a matter of courtesy, however, to the medical schools I have addressed all of them requesting an authoritative statement of their position with respect to requiring henceforth a three-years' graded course of study as an indispensable condition of graduation; I submit herewith the replies received.

Of the fifteen schools in the State the following have unequivocally committed themselves to the indicated requirements given in the order of their founding, namely. The Missouri Medical College, the St. Louis Medical College, the Hœmeopathic Medical College of Missouri, the American Medical College, the Beaumont Hospital Medical College, the St. Louis Hygienic College of Physicians and Surgeons, all of St. Louis, the Medical Department, University of Missouri, at Columbia, the Kansas City Medical College, the Kansas City Homœopathic Medical and the Northwestern Medical College at St. Joseph.

This constitutes eleven out of fifteen favorable to action being taken by this Board to require a three-years' course, instead of two, as a condition of recognition of diplomas, the four remaining schools having made no definite response to the communications addressed to them on the matter. Two of them are in St. Louis, one in Kansas City and one in St. Joseph.

It would hardly be denied by those most rash or opinionated that a better quality of medical service secured by an extended course of study, and more thorough clinical and laboratory training before graduation, would be vitally beneficial to the people of the State; and this consideration taken in connection with the demand of the medical profession of Missouri for this advance, unmistakeably voiced through the State organizations of all its branches of practice as it has been, should weigh with us in determining our actions as public servants.

If it be urged that no legal authority exists to warrant the Board in making obligatory additional requirements, it may be asked where the Board got the right to make the present requirement; for if no right exists to make a three-term requirement when it is demanded by every interest the Board represents, then no authority existed to make a two-term requirement, or any requirement for that matter, for the law stands unchanged, the same now as it was then.

So far as I am informed no member ever entertained a doubt as to the perfect legal right of the Board to establish such a test of good standing of medical schools; and the action of the Board two years ago in doubling the requirements exacted of midwifery schools shows that no doubt ever arose as to the legality and propriety of such action.

I respectfully submit that in my judgment this is a matter exclusively within the power of the Board to determine, and that it has become imperative upon us to come to a decision on the question. The light afforded by the Supreme Court in the Granville case would seem all sufficient to guide us and the matter is respectfully submitted for such action as may seem wise and necessary.

Death of Mr. Prather.

The death after a lengthened period of suffering of our friend and late colleague, Mr. James B. Prather, having occurred on February 23 last, and subsequent to our last meeting, I would respectifully recommend the appointment of a committee to prepare and present to the Board a suitable tribute to his memory and in recognition of his valuable services as a member of this body.

The present occasion is the first one in over a year that the membership of the Board, has been full and in welcoming the newly appointed members to the deliberations of the Board it is with the sincere hope that the harmony and good-will that has always marked our intercourse and the mutual respect and esteem in which each has held the other, may continue unimpaired and grow stronger as we know each other better.

Appended hereto I have the honor to present reports of the late meetings of the National Conference of the State Boards of Health, and the Licensing and Examining Boards.

All of which is respectfully submitted.

George Homan, Secretary.

St. Louis, May 28, 1891.

The National Conference of State Boards of Health.

To the Honorable Board:

Gentlemen.—I have the honor to hereby report that in accordance with the authority given me to do so I attended the Seventh Annual Meeting of the National Conference of State Boards of Health which convened in Washington, D. C., on the 2nd instant.

The attendance was larger than at any former meeting of this purely sanitary organization, representatives from the Boards of the following States being present: namely:—Alabama, Connecticut, Iowa, Illinois, Indiana, Kentucky, Louisiana, Maryland, Michigan, Missouri, New Hampshire, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, West Virginia, Wisconsin, the District of Columbia and the Province of Ontario, Canada.

The Session was opened by Dr. Cochran, State Health Officer of Alabama, who discussed the following question proposed by the State Board of Louisiana,

What are the requisites for a thorough system of quarantine and maritime sanitation in the light of present scientific attainments?

In the course of his remarks he said that but about one in twenty ships from yellow fever infected ports brought contagion, and less than one in a hundred ships from non infected ports brought yellow fever. One great problem was the disinfection of ships without inconveniencing commerce.

The proper place for quarantining yellow-fever ships, which nearly all came from Cuba, was the port of Havana. There the disinfection could be accomplished without any delay to commerce. Five days' detention at quarantine in New Orleans was more than the commercial interests could stand. The disinfection of valuable fabrics, such as passengers carry, can best be accomplished by subjecting them to steam heated to 212°. Coarser articles of clothing and bedding could be boiled.

He criticized somewhat existing systems of maritime disinfection, showing what he conceived to be the weak points in them according to his experience.

He was followed by Dr. Oliphant, President of the Louisiana Board, who discussed the following question proposed by Alabama:

Given a vessel with cargo from Central or South America, or the West India Islands, can such vessel and cargo be disinfected without discharging the cargo?

Can such cargo be disinfected thoroughly without damage, after it has been discharged?

The speaker stated that by means of the system of forced ventilation and fumigation employed at the Louisiana quarantine station that certain kinds of cargoes, such as coffee in bags, could be distinfected without being unloaded, the contagion if any existed, being in the coverings of the goods, and instanced experiments made by the Louisiana Board which showed that very nearly atmospheric saturation point was reached by their method of generating sulphur dioxide, and that it had been found to penetrate deeply baled goods in the holds of vessels subjected to forced sulphur fumigation.

Sugar is now received at New Orleans from Cuba in the warm season, and the fruit trade with that island and Central America is carried on under special regulations as the perishable nature of such cargoes forbids detention or disinfection.

Dr. Saloman, Secretary of the Louisiana Board, then discussed the question:

What are the best methods for the self-protection of individual States from the introduction of pestilence through States which have no adequate quarantine?

He stated as a result of his experience and observation that it was possible for passengers, excluded from reaching his State by direct routes through quarantine regulations in force in the dangerous season, to enter Louisiana by way of Florida, persons being able to reach ports in that State in a few hours from Havana and the coming by rail to New Orleans, less than three days from an infected place. He remarked, Louisiana had no feeling of hostility toward any neighboring States, but she wanted to enforce her regulations for the protection of her own people, and again referred to the necessity of protecting States which did not maintain quarantine protection. People in their anxiety to get away from Havana would go to Tampa and from there overland to New Orleans, where the yellow fever had been developed in consequence.

The following questions were submitted by the State Board of Ohio:

Should State Boards of Health have control of the sanitary arrangement of all school buildings to be erected within their boundary?

What is the best plan to secure such control?

The discussion was opened by Dr. Balch, Secretary of the New York Board, who under a misconception as to the true import of the question, he believing that all details of local sanitation was included therein, opposed State control.

Dr. Probst, Secretary of the Ohio Board, explained that the question did not refer to school buildings already built, but to new buildings. A large majority of the school buildings being erected now were very badly planned from a sanitary point of view. He thought that the plans for school buildings should be submitted to the State Boards for approval before the buildings were erected.

The matter was further discussed by representatives from Wisconsin and Missouri, the undersigned suggesting the preparation by the proper State authorities of model plans for school buildings designed in accordance with the number of pupils to be accommodated, and that such plans be submitted to the State Boards for criticism or approval, together with a sketch of the proposed site, means of drainage, etc., which was favorably received, but no definite action was taken.

At 1 o'clock the Conference adjourned until 10:15 A.M., Monday.

The session on the 4th inst. was opened with a paper by Dr. Bryce, Secretary of the Ontario Board, on a question proposed by the Kentucky Board, as follows:

What should State and Local Boards of Health teach, and what should they do to prevent consumption?

He thought that after the investigations by Dr. Koch and his predecessors there could be but little doubt that tuberculosis is a zymotic disease, to be placed in the same category as leprosy and glanders, inoculable and hence contagious. The segregation of animals afflicted with glanders does much to prevent its general spread among other animals, and one might imagine an ideal state of civilization wherein cases of phthisis could be separated from the unaffected people. As the disease is more studied and better understood the less credence is placed in the dangers from heredity and more from contact; and he read a number of statistics showing the tremendous prevalence of the disease and the fact that while in the country and rural districts the disease is to be found one case in every thousand, in crowded cities it is as two to the thousand. Tuberculosis is not necessarily confined to the human race, and there is even a constant danger arising from the use of milk from cows that are afflicted with tuberculosis. Milk from diseased cows has been inoculated into guinea pigs and 8% of them developed the disease, as did also a large number of pigs that were fed upon such milk. It has been proven that as such animals grow older they are more liable to tuberculosis, more than half of the cases being cattle above the age of six years. This is a strong element of proof that the disease is contagious. Another thing that proves this also is the fact that in Germany it has been noted that when the disease increases among animals it also increases among human beings at the same rate, while the rate of decrease is the same in both cases.

The excessive prevalence of the disease among crowded populations was forcibly commented on and the paper ended with the following conclusions:

First, that phthisis is a contagious disease. Second, that on the assumption that that is true as health officers it was the duty of the conference to treat it as such. Third, that the treatment of the disease has in it all the characteristics of a sanitary crusade. To deal with the disease successfully it is necessary to go at it in a preventative way, as in treating diphtheria and other such diseases, by removing the cause. The habits and lives of those affected should be so regulated that they will not endanger the health and lives of those not affected, and hospitals and sanitaria should be established where the disease can be properly treated. The houses of the people should be better arranged, ventilated, heated and drained; and there would be much less liability to the disease.

In cases of consumption Dr. Bryce said he had no idea of recommending isolation in the sense that diphtheria is isolated, but he did think that when it became known that a case of phthisis had developed in a dwelling or a factory it was full time that the sanitary officers should have the right, and it should be their duty to step in and regulate the sanitary arrangements of the house or building. Curative institutions for the treatment of consumptives must be in their nature essentially sanitaria, where a pure life can be led with plenty of out door exercise under favorable circumstances.

The question was debated by representatives from Michigan, New York, Alabama, Missouri, Louisiana, Vermont, Michigan, Wisconsin and Kentucky, showing

the deep and wide interset the subject aroused and that it is a common danger in all parts of the country, the one most destructive to the human race and hence deserving of the most active and efficient opposition that sanitarians can offer.

Your representative took occasion to call attention to the strong probability that a sanitarium or hotel devoted to the reception of consumptives, unless conducted with extreme care, even when situated where the climatic condition are favorable to its patrons, may become a grave source of danger to susceptible people in the same locality, especially to the attendants of the sick, those who wash their garments, etc.

A member of the Kentucky Board directed attention to the greatly increased prevalence of consumption among negroes now as compared with their condition before the war, when it was to their masters' interest that they should be well-housed, clothed, and fed. Now they are often huddled together in want and suffering and fall ready victims to tuberculosis.

A practical conclusion of the discussion was the agreement that the members of the conference should each urge in their respective States upon the people the speedy destruction by chemical means or fire of all matters expectorated by consumptive people, or those in whom the existence of the disease appears probable, and also the disinfection of the stools of those in whom it is undoubtedly present.

Dr. Lindsley, Secretary of the Connecticut Board, then discussed the question propounded by the Ontario Board, as follows:

Would the appointment of medical health officers for counties, in place of township officers, and paid for devoting their time exclusively to public health, be advantageous and practicable?

His opinion was decidedly in the affirmative of the proposition, and this was the generally expressed opin ion of those who spoke, but the practical difficulty experienced almost everywhere of getting the means to pay such official an adequate salary stood in the way of realization of the suggestion.

Another proposition from the same source was as follows:

The advantages of the organization of Rivers Conservancy Commissions composed of State and Municipal Health Boards, for the protection of streams against deforesting and pollution at their sources and along their courses.

This led to an interesting and instructive discussion inasmuch as the whole subject of the pollution of navigable and other streams used as sources of supplies of water for cities and towns was opened up and instances were shown wherein the poisoning of streams by sewage in one State led to epidemics of diseases in another one, and an urgent desire was expressed for some method of inter-State action by which such evils could be reached and remedied.

The following resolutions were adopted after considerable discussion:

Resolved, That it is the sense of this Conference that the pollution of streams is attaining such magnitude that early action should be taken by State and Local Boards of Health looking to its prevention.

Resolved, That a committee of three he appointed to consider the best means of securing the formation of Rivers Conservency Commissions, composed of State and Local Boards of Health, and to recommend such legislation as may be necessary to secure the desired result.

Resolved, That this committee be requested to consider and report upon the sanitary value, especially to municipalities, of the purification of water in polluted streams, either by the distance which such polluted water has traveled, or by means of filter or storage beds, or any other artificial methods.

Afterward it was decided to increase the number of the committee and the following gentlemen were named:

Dr. L. F. Salomon, of Louisiana; Dr. C. A. Lindsley, of Connecticut; Dr. C. N. Metcalf, of Indiana; Dr. John H. Rauch, of Illinois, and Dr. H. P. Walcott, of Massachusetts.

After a discussion on suggestions for a change of plan in arranging the programme of future meetings which resulted in nothing definite, and an interesting survey by Dr. Vaughan of the Michigan Board of what recent developments have been made in laboratory work of practical value to health boards; in which water analysis by speedy methods was instanced as being one of the most valuable, the officers were all re-elected and after the annual dues had been fixed at ten dollars for each State represented, the Conference adjourned to meet next year at New Orleans.

Meeting of State Licensing and Examining Boards.

By invitation I attended a meeting of representatives of State licensing and examining boards, which convened at the Arlington Hotel on the 6th inst. for the purpose of an exchange of views on methods of conducting examinations of candidates for license; and, if possible, to form a national organization of such bodies with the ultimate object of reaching a fair degree of uniformity in the tests applied to candidates, and, as for as possible,to co-operate and work harmoniously together in the work in which they are all engaged.

Representatives were present from the States of Alabama, Illinois, Iowa, Minnesota, Missouri, Montana, New Jersey, New York, North Carolina, North Dakota and Virginia. A temporary organization was effected by the election of Dr. J. H. Rauch of Illinois, President, and Dr. L. J. Picot, of North Carolina, Secretary.

The representatives of the Boards present were invited to explain the methods followed in their several States, and much interesting information was elicited. In Alabama there exist county examining boards the members of which are chosen by the local medical societies. If the candidate passes the examination he is given a license to practice which is good throughout the

State; if he should fail to pass he may apply to the State Board, which body then examines the applicant and either licenses or rejects him as the result of the examination may warrant.

The examinations are in writing, they cover all the principal branches of medicine, and a supervisor is employed by the Board to be present with the applicant throughout the examination, to give out questions, receive the papers, etc. The papers are preserved in permanent form as they are made subject to a demand for inspection by the State courts if a rejected condidate thinks he has been unfairly treated. No diplomas are recognized and about eighty candidates are examined every year, a varying proportion of whom succeed in getting licenses, 75% of correct answers being required to pass.

It is understood that all comers are examined, which differs from the plan followed by the Minnesota Board, the law in that State requiring that all applicants who graduated later than 1887 shall present evidence of having attended three courses of lectures of at least six months each as a condition of admission to the examination.

In Virginia the Board consists of thirty six members, three of whom are homœopathic. In that State also the law requires the examination of everyone who may apply regardless of whether he has even the most rudimentary knowledge of medicine, or indeed ever studied it at all, and a rejected applicant may apply again and again without being required to submit evidence of having studied medicine in the interim. This would appear to be the reduction to an absurdity of an otherwise excellent system, the fault, however, resting with the lawmakers, and not with the Board.

The license of the Virginia Board is not recognized in North Carolina, nor is that of the latter State in Virginia, although the methods pursued approximate uniformity, and a person receiving license from either Board would be subjected to about the same tests in both States. This is not only a hardship to physicians, but is an injustice that should be corrected by legislation of a more liberal spirit in States where such bars to inter-State comity exist, and it is likely that this will be done, as it is the wish of the Boards in both States to bring it about.

In New Jersey the Board is composed of nine members, three of whom are homœopaths and one eclectic, but so far as its working is concerned it was the testimony of the Secretary that these distinctions were entirely ignored in the Board, and it was the uniform testimony of those who represented mixed Boards that entire harmony was preserved in all the official proceedings of such bodies.

A permanent organization was effected by the election of the temporary officers, and adjournment was had after it had been agreed to meet next year.

All of which is respectfully submitted.

GEORGE HOMAN, Secretary.

REPORT OF A CASE OF ABDOMINAL UTERINE TUMOR.

BY EDWARD BORCK, A.M., M.D., ST. LOUIS, MO.

HISTORY.—Mrs. C. N., a farmer's wife from Kansas, was sent to me by her family physician in May, 1885; she was æt. 41, 5 feet 6 inches high, natural weight 96 pounds, brown hair mixed with gray, blue eyes; had always been in pretty good health, quiet temperament, menstruation regular, of late some leucorrhœa, a small tumor in pelvic cavity of about two years' growth.

DIAGNOSIS.—Fibroid of the uterus. Ovaries not implicated. Refused to operate, advised the patient to go home and wait until her climacteric period had passed; if by that time the tumor had not increased very much, and she would be well otherwise, then the tumor would very likely cease growing, or even atrophy after she had passed the critical period, and need no interference. If, however, the tumor should become larger, to return and we would see what would be best to be done.

May 15, 1891, six years later, Mrs. C. N. arrived again at my Private Surgical Home. She came determined to have the tumor removed and get well; she could not stand it any longer, something must be done for her as the tumor had increased in size considerably. Menstruation had ceased for some time.

EXAMINATION.—Patient's weight 121 pounds, circumference over umbilicus 48 inches. Otherwise the patient was in a very good condition, excellent spirits, tranquil, and not the least afraid.

DIAGNOSIS BEFORE OPERATION.—Fibro-cystic tumor of the uterus, left ovary not involved, right ovary may be cystic degenerated, no adhesions except to pedicle. Taking all the circumstances into consideration I advised the operation.

May 17, at bedtime, she took calomel gr. x. followed the next morning with a Seidlitz powder.

May 18, before retiring, a warm bath.

May 19, in the morning a cup of milk and a slice of bread; a copious enemata of warm soap water, which cleaned the bowels thoroughly; a vaginal douche of warm water was given, and she was put to bed. At 11 o'clock morphine sulph gr. ss. and warm water bottles to limbs and body to keep her moist; she slept. At 12 o'clock she took the chloroform with ease. I operated in my usual manner, Drs. Wm. W. Graves and Henry Summa assisting: present, Dr. L. W. Gerling, Mr. Heideman, M.S., and Miss Henriette A. Stoffregen, the nurse.

After opening the abdomen by an incision extending from the pubis to about 1½ inch beyond the umbilicus, a large, round, solid tumor was exposed; no adhesions anywhere; the ovaries not involved though both degenerated. On the right side of the tumor were several small bunches or protrusions from the tumor and more soft or cyst-like; and closely surrounding the right ovary. The uterus elongated formed the pedicle proper, the fundus involved in the tumor.

I ligated both ovaries with a single silk ligature, separated the peritoneal covering all around, bringing into view the pedicle proper; introduced through the uterine pedicle one of my cyst elevators (double needle), tied a strong silk ligature below the needle and around the pedicle; amputated ovaries and tumor with a pair of serrated scissors, stopped all hæmorrhage thoroughly, which was very little—she lost in all not over one ounce of blood; the abdominal cavity was cleansed and flushed with the artificial serum. I then touched or amalgamated all the blood vessels with the actual cautery, and stitched the two peritoneal folds together with interrupted fine silk ligatures, covering and inclosing the pedicles; again flushed the cavity with warm artificial serum, and closed the abdominal wound with deep-seated and superficial silk ligatures, thus obtaining a clean shut peritoneal sack. Dressed abdomen in the usual manner. The patient rallied well.

Progress of the Case.—In the evening, after the operation, her temperature was one degree below normal, pulse weak but regular, respiration slow. She had been a little nauseated for a few hours but had suffered hardly any pain and slept at intervals.

May 20, Morning.—Temperature, 100.4°, pulse, 90, respiration 24. Some accumulation of gas in the intestine. A glycerine rectal suppository relieved her almost immediately.

Evening.—Temperature normal, pulse 72, respiration 18. Otherwise in a good condition and spirits. From this time on she kept at this stage and slowly improved. Evacuation of bladder and bowels natural.

On the third day, May 22, I removed every other deep seated ligature; the wound was closed and perfectly dry. By the seventh day all the ligatures were out, not a drop or sign of any pus, patient was up. On the fourteenth day the patient walked out to the dining-room and took her meal with the family. For the first two days after the operation she was fed on oatmeal gruel, beef tea, brandy, ice, according to circumstances. After that milk, meat, eggs, vegetables, etc., in addition.

The tumor weighed 20 pounds and 7 ounces. I presented it to the St. Louis Medical Society with a short history on the evening of May 23, and made a section of the tumor in the presence of the members, and would say that to all appearance the mass was colloid, showing beautifully the uterine tissue, that is the upper part of the fundus of the uterus, from whence the growth originated with both degenerated ovaries attached.

General Remarks.—It will be observed that I took all possible aseptic precautions. Nothing but clean distilled warm and cold water was used, and the artificial serum for the abdominal cavity, instruments, and ligatures? In my early operations I followed a strict antiseptic plan, carbolic acid spray, etc., etc. In time I have learned better and instead prefer the aceptic method, cleanliness and discipline. No opium, no medicine of any kind was used, nor was it needed in this case. This patient was an admirable patient, quiet, obedient, good spirits, with faith in her recovery. I am especially pleased that she took my advice in 1885.

This is my sixty-ninth case of ovarian or uterine tumors operated upon, exclusive of all other laparotomies for other causes. Out of my first 25 cases I lost 4 patients; out of the next 25 cases I lost but 1 patient. See report in September, 1885.

"Remarks on Abdominal Surgery With 50 Cases."—Read before the Mississippi Valley Medical Society, Evansville, Ind., September, 1885. In full in the *Medical Record*, September 26, 1885, Vol. 28, No. 13, whole No. 777. W. Wood & Co., Publishers, 56 & 58 Lafayette Place, New York City. Abstract from same in *Journal of the American Medical Association*, Vol. V, No. 14, October 3, 1885. 65 Randolph St., Chicago, Ill. *Medical and Surgical Reporter*, November 28, 1885, Vol. LIII, No. 22, Philadelphia, Pa.

Out of last 19 cases up to date I lost 2 patients; these 2 were operated upon at their homes. The other 17 cases were operated upon and kept under my own immediate and constant observation at my Private Surgical Home, no death.

I would also refer the interested reader to my papers on:

"Ovarian Tumors. At what Stage of the Disease is it the Proper Time to Operate?"—*Cincinnati Obstetric Gazette*, March, 1880. 101 inquiries.

"Ovarian Tumors. Diagnosis and Operation."—Second and Revised Edition with Six Wood cuts. (Pamphlet).

"Ovarian Tumors. (Two Lectures) Diagnosis of, and Operation." Part I.—*Cincinnati Obstetric Gazette.*

"Cyst Elevator. Description of, and Method of Operating." Three Illustrations.—*Cincinnati Obstetric Gazette.* February, 1879, also Illust. Vierteljahrschrift der arztlichen Polytechnick. Bern u. Leipzig.

I cheerfully admit that I carefully select the cases I operate upon.

TRANSLATION.

ABSTRACTS FROM THE FRENCH AND GERMAN.

FOR THE WEEKLY MEDICAL REVIEW.

BY FRITZ NEUHOFF, M.D., ST. LOUIS.

Apiol in Amenorrhœa and in Dysmenorrhœa.

Apiol, the active principle of the seed of parsley, is an oily, amber-colored liquid, insoluble in water, but soluble in alcohol, ether or chloroform.

In regard to its physiological action, we may say that it is absolutely harmless, even in commencing pregnancy. A dose of 8 to 15 minims produces slight cerebral excitement, a feeling of well being, and a sensation of heat in the stomach. In doses of from one-half to

one drachm, it produces veritable intoxication, accompanied by vertigo.

In regard to the therapeutics of apiol, we may say that it appears to have an action on the uterus, similar to the action which digitalis has on the heart; it regulates menstruation. It is, therefore, useful in all the derangements of menstruation, namely amenorrhœa, dysmenorrhœa and metrorrhagia, provided these disturbances be idiopathic.

If, on the other hand, these diseases be due to organic affections, then we must treat these organic affections directly.

As derangements of menstruation are a common cause of sterility, apiol may be said to be a remedy for this latter disease, for by curing the menstrual disease, it will also cure the sterility.

In order that apiol may exercise its most powerful influence, it should be administered just prior to the beginning of the menstrual flow, that is, when the patient begins to feel the pain in the back, and other symptoms which announce the approach of menstruation.—*Le Bull. Med.*

The Effect of Sodium Chloride Baths.

As a result of experiments on the healthy organism, Robin concludes as follows concerning the action of salt baths:

1. An impulse is given to general changes, to nitrogenous changes, to the oxidation of products of destructive assimilation of albuminoids.
2. Uric acid undergoes a very slight increase.
3. There occurs a diminution of the rate of destructive assimilation in tissues rich in phosphorus, or rich in both nitrogen and phosphorus.

The chief indications for sodium chloride baths may therefore be said to be present:

1. In all morbid states, accompanied by hypo-azoturia, that is to say, a diminution of the nitrogenous changes.
2. In decreased oxidation of nitrogenous substances.
3. When we wish to utilize the saving action exercised by this bathing on tissues rich in phosphorus, and those rich both in nitrogen and phosphorus.

Salt baths are, therefore, suitable in scrofula, rickets, chronic inflammation of the uterus and its appendages, chronic rheumatism, certain forms of anæmia, etc.

Everyone knows that all anæmias are not amenable to ferruginous preparations, and that in many cases of anæmia iron is not well borne and must be replaced by arsenic. But there does not at present exist any positive way of telling in which cases iron will agree, and in which it will not agree. Robin, however, believes that he has discovered a method.

If we study the chemistry of the phenomena of anæmia, says he, we may divide them into two classes. The first class (which is also the most frequent) comprises those anæmic patients in whom nitrogenous changes and oxidation are diminished. The second class includes the cases in whom the nitrogenous changes and oxidations are augmented beyond the normal limit.

Whatever the exciting cause of this second class may be, it increases the oxidation. Any therapeutic measures which increase oxidation, act in the same direction as the disease-producing cause, and can not have any restraining influence over this cause.

Measures indicated in the first class of anæmias are contraindicated in the second class.

As iron increases oxidation, and arsenic diminishes it, we must agree that iron is indicated in the first class of anæmias, and arsenic in the second class.

Chloride of soda baths, as we have seen, increase the coefficient of oxidation and the destructive assimilation of nitrogenous substances. They ought, therefore, to be prescribed in anæmias of the first class and abstained from in those of the second class.

These baths are also suitable in other morbid conditions, such as obesity, gout, diabetes, etc.

They would be only rarely indicated in diabetes in which oxidation or destructive assimilation is too active.

The above considerations are altogether theoretical, and as yet lack clinical confirmation.—*La France Med.*

Histological Changes in the Nerve-Centers Produced by Electricity.

Magini subjected animals to electrical currents of various intensity, and has concluded that when animals are killed by electricity, though apparently there may be no lesions, in reality there are produced important changes in the cerebro-spinal nerve cells.—*Deut. Med. Zeit.*

Potash Iodide in Diphtheria.

To adult patients suffering from diphtheria, iodide of potash was given, as high as 4 g. (ʒj) per diem; to children of 1 to 14 years, 0.1 per diem for each year of age was administered until symptoms of iodism were observed. In cases in which there was cardiac weakness, tonics were added as adjuvants. Besides a 3% solution boracic or salicylic acid was used as a gargle or spray, and 1.5 g. of unguentum ciner. was rubbed into the submaxillary region.

Of 28 cases treated in the above described manner all were cured.—*Vratch. Cent. f. g. Ther.*

Formula for the Treatment of Uncontrollable Vomiting or Gastralgia.

℞	Cocain,	0.10
	Antipyrin,	1.00
	Aq. Destil,	90.00

D. S. A teaspoonful every one-half to one hour.

—*Cent. f. g. Ther.*

Croupous Pneumonia Treated by Digitalis.

After several years' trial of the various methods of treatment which have been recommended for croupous pneumonia, Prof. Petresco (*Therap. Monat.*) has arrived at the conclusion that large doses of digitalis give the best results.

He administers in the course of 24 hours an infusion made from 4 to 8 g. of digitalis leaves. This daily quantity he continues during two to four days, according to the severity of the illness. In no instance were vomiting or other toxic effects occasioned by the medicine.

The temperature, as a rule, falls from one to three degrees after a single dose, and from five to six degrees after two or three doses. At the same time the pulse is reduced by from 40 to 60. This effect on the temperature and pulse continues for about ten or twelve days, during which time the lung, as a rule, returns to its normal condition.—*Cent. f. g. Therap.*

Infant Feeding.

Dr. Toussains states that he has prevented derangement of the alimentary canal of infants during hot weather by giving after each meal a teaspoonful of the following mixture:

℞	Papaini,	p.	0.5
	Acid lactici,		2.0
	Aqu. dest.,		150.0
	Syrup simpl.,		50.0
	Tr. vanilli, q. s.		

Besides, he gives as nourishment, equal parts of milk and Vichy water, together with malt flour, in teaspoonful doses, diluted with four times the quantity of hot water.

In some cases the milk was omitted, and malt flour alone was given as a nourishment, and white of egg, water, with a little rum and sugar, as a drink.

In many cases the beneficial effect of malt flour (*farine maltes de Dupresne*) was noted.—*Cent. f. g. Ther.*

Action of Quinine and Antipyrin.

Quinine decreases the production of heat. This effect is more pronounced in high bodily temperatures. At the same time, however, the giving off of heat by the body is also decreased.

Antipyrin increases the giving off of heat (more so in high bodily temperatures). The production of heat is, however, also augmented by it.

Evidently the decrease of the giving off of heat produced by quinine, and increase in the production of heat caused by antipyrin, are compensatory and salutary (accounting for the greater difficulty of reducing the bodily temperature in healthy than in feverish animals.)

From the above we see that antipyrin is suitable as a temporary expedient to reduce very high temperature, while for longer antipyretic treatment we must choose quinine.—*Cent. f. g. Ther.*

WEEKLY MEDICAL REVIEW.

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William Dickinson, Associate Editor, 1322 Olive St.

TO CONTRIBUTORS AND CORRESPONDENTS.

The attention of all who purpose favoring us with communications is respectfully called to the following: Authors of articles intended for publication (under the head of original communications) are respectfully informed that in accepting such articles, we always do so with the understanding that the following conditions are to be observed.

When a manuscript is sent to this Review, or any abstract thereof, it must not have been previously published.

Accepted articles are subject to the customary rules of editorial revision, and will be published as promptly as our other engagements will permit.

Twenty-five extra copies will be furnished free to the author of each original contribution.

Contributors desiring reprints can obtain them on favorable terms by applying to the publisher immediately after their articles have been accepted for publication.

Illustrations will be furnished free when drawings, carefully prepared in ink, accompany the contribution.

All letters whether intended for publication or not must contain the writer's name and address, not necessarily for publication. No attention will be paid to anonymous communications.

Secretaries of medical societies will confer a favor by keeping us informed of the dates of the meeting of their respective societies.

Newspapers and other publications containing matter which the person sending them desires to bring to our notice should be marked.

Members of the profession who send us information of matters of general interest to our readers will be considered as doing them and us a favor, and if the space at our command admits of it, we shall take pleasure in inserting the substance of such communications.

All communications for the editor, and all books for review, should be addressed to the editor of the St. Louis Weekly Medical Review, 520 Olive Ltreet.

All letters containing business communications or refering to the publication, subscription, or advertising department of this Review, should be addressed to The Medical Review Association, 914 Locust Street, St. Louis.

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SATURDAY, JUNE 27, 1891.

MEDICAL PROPRIETIES.

CHAPTER II.

Duties of the Physician.

As there is the ideal man, so there is the ideal physician, who is the impersonation of all the moral and professional virtues. This physician may be a myth; yet the more of those qualities a man embodies, the nearer he approximates the realization of this ideal. Perfection should be the aim of all. Whatever dishonors the man, this in a greater degree dishonors the physician, in consequence of the more intimate relations which he sustains to a community and to the individual. How wide the departure from the true standard do we see of conduct or hear of expressions on the part of a physician. Some of these we are called upon to note and criticise. Next to the relation of kindred and that of the nearest

to each other, none is so intimate as that of the ideal physician to his patient. He is admitted to all the privacies of the family and the individual; to him is revealed his past history, his present and his anticipations for the future. His present affection has an antecedent date, which it is important for his advisor to know; its origin in time, manner, degree, hereditary or acquired; his coustitutional proclivities, etc. This physician is his second self, in the domain of confidence; if aught is withheld, it is withheld at his peril, for that factor may be the cardinal element upon which may turn the termination of the disease. It must be granted at the outset that he is subjected to peculiar temptations. His ear is the common receptacle of a knowledge of all the occurrences in each family he visits; he may convey and detail to each successive family he visits the news and gossip gathered at the preceding; it may be of neighbor strifes or family quarrels; of family secrets; of the physical condition of its members, which should be faithfully preserved in the recesses of his own mind. These are the skeletons in each household, and these the public is the most eager to extort from his treasure-house. These the unworthy physician carries with due expedition and pours them into broad and itching ears; and having dumped his cart of slang and slander here, he, in exchange gathers a new supply; he loses nothing by imparting; but like the classic Fama, *eundo viret*, his budget is always full; is never exhausted, yet can contain more. Should he chance to succeed another and a worthy practitioner in a family, he improves the joyous opportunity of slandering the name and reputation of his predecessor,instead of giving one word of commendation, or permitting him to remain without mention; magnifies his own ability; "was called just in time to save; the delay of a day or two would have been fatal; he becomes the apostle of miracles and timely rescuing him from the brink of the grave;" declares his ability to restore him to health and vigor; oblivious of the fact that he himself is very weak, and but the medium in the employment of therapeutic agencies, however wise and discreet his own ministries may be. The reputations of his other neighbors he may spare; but that of his discharged brother he holds of little worth if he can only establish himself in the newly acquired family and add it to his own clientele. Sometimes even the reputable physician is heard to speak disparagingly of his brother in general conversation, and carelessly hurl the firebrand of detraction and slander. Every family should beware of the tattler; keep in lively remembrance the wise saw, "he that brings a bone will carry a bone." Detailers of gossip should be held at a great discount; backbiters should be denounced, disgraced, ostracised. If he may never have heard of the formulated code or of its provisious, let him be mindful of the behests of the code impanted within him, and by its arbitrament let him test his conduct.

The physician in reference to his knowledge of a family's secrets or condition should be a medical "know nothing," ever manifest the wisdom of the serpent, but exhibit no other quality of that prime disturber of domestic and social relations; being made the confidant of family secrets, let him also be the faithful keeper of the same, let them be lodged and secured in his own breast, from whence no form of interrogation can extort them.

A physician in the country, being called to see a sick child, diagnosed the affection scarlet fever. Making a visit also to a neighbor, he duly announced the existance of the case. The news spread quickly from mouth to mouth, and from family to family in the neighborhood; in a few short hours the entire comunity has taken the alarm, and to avoid infection children were dispatched in all directions. The attending physician should have kept his own counsel, should have made no disclosure—confined his duties to the care and cure of his patient; and not by his thoughtless tattling render himself an alarmist; enough for him to have directed the seclusion and isolation of his patient in the family and due warning to be given to the accidental caller; while the other children could have been sent away, if deemed imperative. Good faith with patient, good faith with family and good faith with brother physician completes the fulfilment of the whole law.

Dr. Daniel G. Brinton.

The medical profession has recently been honored by the reception of the honor of LL.D. by Dr. Brinton in recognition of his researches in anthropology and ethnology. This was conferred at the annual commencement of the Jefferson Medical College, Philadelphia. All deserving are not thus honored. It is the peculiarity of the medical profession that often its highest achievements are wrought in obscurity and amid scenes of poverty and distress. But let none on this account despair; there is an eye that sees and a hand that will record the beneficent act, and write against it. "Inasmuch as ye have done it to one of the least of these my brethren, ye have done it unto me."

All Hail to the University of Pennsylvania.

This medical school, the oldest in the United States, follows the action of Harvard in prescribing and demanding a four years' course of study of its graduates. Towards securing an endowment fund of $250,000 Provost Pepper has made an offer of $50,000, and of $1,000 towards a guarantee fund of $20,000 annually for five years, conditional upon the establishment of an obligatory graded four year course of medical study. The medical faculty has subscribed $10,000 annually for five years to the endowment fund.

The laboratory of hygiene will be opened in February, 1892.

Indignity to a Military Surgeon.

A terrible judgment and penalty has recently been awarded to a soldier for indulgence in a spirit of insubordination and violence. The council of war of Algeria has recently condemned to death a soldier, who struck with his fist the surgeon-major of his regiment who had refused to give him, once a patient, a recognition. In some aspects this seems a harsh, even a cruel doom, and incommensurate with the heinousness of the act; but, should this be allowed to pass without receiving condign punishment, leniency might lead to its repetition by himself; and others catching the infection, there might arise a mob and insurrection, which, without the loss of many lives, could not be quelled.

Human Longevity.

The length of human life is ever on the increase. Two hundred years since, the average period was twenty years. During the century from 1725 to 1825 it was lengthened one-third, and since the present century began, statisticians inform us, nine years have been added, so that now the average period of human life has reached nearly forty years. "Better food and more of it; more and better clothing; improved drainage; a purer and more abundant water supply; better ventilation; more warmth and dryness in our houses; the multiplication of hospitals and progress in the surgeon's art; vaccination and temperance reform are enumerated as the chief causes of the lengthening of human life." In Birmingham, England, with good drainage the deaths were one in forty, while in Liverpool, undrained, it was one in thirty-one. In the mud cabins of Ireland the average duration of life was twenty-six and a half years, while in the cottages of the agricultural laborers of England it was fifty or sixty years. In a district in Glasgow where the death rate formerly was forty in a thousand, sanitation has reduced it to twenty-eight, and in some parts of London to seventeen or eighteen. In a single hospital for children proper ventilation reduced the deaths from 2,944 out of a total of 7,650 down to 279.

More care in the construction of dwellings and the selection of sites has had wonderful results in diminishing the death rate. In London, during the last century nearly two hundred thousand persons perished from small pox. Macaulay says that a person without a pitted face was the exception. But, thanks largely to vaccination, there were only fourteen cases of small pox in New York in 1878, with a population considerably over a million. From 1868 to 1878 it is believed that sanitation saved 40,000 lives in the British army. In Queen Elizabeth's time, one in two thousand of her subjects were murdered annually. At the same rate there would now be in London 2,500 murders every year, whereas the number is only twelve. This is what lighter streets and a more efficient police have done for the British metropolis.

Quacks in France.

At the recent session of "The General Association of Physicians of France," M. Riant stated he had obtained a sentence of six months' imprisonment against a man convicted of illegal practice, already condemned in 1889 to a penalty of $100 for the same misdemeanor. The Court of Espalion, condemned for illegal practice, a man named Daudé, to six months' imprisonment and a fine of $200. The Court of Millan inflicted upon a charlatan, for illegal practice, six months' imprisonment and the penalty of $400. A brother of this empiric was also condemned two months later to two months' imprisonment and a fine of $10 for practicing medicine illegally.

Howard University, Washington, D. C.

The Medical Department of this University for colored students has recently held its commencement exercises. Thirty-three young men were graduated, including one in dentistry and two in pharmacy. The address was delivered by Pres. Rankin, having for its subject "The Physician and Not the Medicine Man." The medical department of this institution, with its rare facilities for clinical instruction, has always led the medical schools of the District.

British Medical Association.

The fifty-ninth annual meeting of the British Medical Association, which will be held at Bournemouth, is contemplated with much professional enthusiasm on the other side of the Atlantic. The committee arrangements promise a more than usually successful combination of work and recreation. It may be noted that the subjects chosen for discussion embrace many of the most active questions of the day in clinical and pathological medicine and surgery. The great subject of tuberculosis will engage the attention of the sections of medicine, of surgery, and of public medicine, discussions having been arranged in the first-named on the Etiology and Prevention of Phthisis and of Lupus; in the second on the Value of Prof. Koch's Method in the Treatment of External Tuberculosis, and in the last named on the Communicability of Tuberculous Disease from Animals to Man. A discussion of hardly less interest will be opened by Dr. Wilks in the Section of Medicine on the Effects of Alcohol, and all who know his originality and freedom from prejudice will anticipate a highly practical contribution to our knowledge.

In the Section of Obstetrics the subjects chosen for discussion are of a most practical nature: Puerperal

Eclampsia and Uterine Polypi. The Section of Public Medicine will have the advantage of hearing, from Dr. Franklin Parsons, who last year conducted an investigation for the local Goverment Board into The Influenza Epidemic of 1889 90; an address on The Distribution of the Epidemic in the British Isles. In the Therapeutic Section, Dr. Lauder Brunton will give a lantern demonstration of the Experiments Conducted by the Hyderabad Commission on Chloroform.

MEDICAL ITEMS.

In the University of Upsala, Sweden, during the present term, there are 221 medical students, 254 in the theological department, 443 in the law, and 740 in the philosophical.

International Medical Congress.—A call is issued by the management of the National Prohibition Park on Staten Island, New York, for an International Congress to meet there July 15-16, to discuss the relationship of physiology and alcohol.

Dr. Eastman, a Sioux Indian, a graduate of Dart mouth College, has recently graduated at the Boston University School of Medicine. On the 15th inst. he married Miss Elaine Goodale and with her returns to his tribe to practice medicine.

The Pan American Congress, of which Dr. Charles L. Reed is President, Dr. I. N. Love Treasurer, and Dr. J. W. Carhart, of Lampasas, Texas, Secretary, will convene in connection with the Mississippi Valley Medical Association in St. Louis, Oct. 14, 1891. At that time the committee appointed will report a constitution and by-laws. This present assembling and organization is designed to be preliminary to the meeting of the "congress" to be held at Chicago in connection with the "World's Fair."

Personal.—The Medical Review has secured the services of Mr. J. Harrison White, as its business manager. This is only another striking evidence of the journalistic enterprise so frequently shown by the Review of late. No man in this country is better or more favorably known to the profession, or to the medical advertising public than Mr. White, and our contemporaries must concede that the business end of the Review, as well as those who patronize it, will receive conscientious consideration.

After seven years' experience in the same capacity with the *Journal of the Amer. Med. Association*, Mr. White enters upon this new field abundantly equipped for the duties before him.

Hiram Christopher, M.D.—Daniel Morton, M.D., exit, with applause! his laurels won. Dr. Christopher appears, well panoplied with untried blade, eager for the fray. We cordially salute our confrere upon his accession to the editorial chair, and welcome him to our guild. The *Herald* has great occasion to congratulate itself upon securing so able a pen directed by a mind so replete with the lore of medical and natural science. Though not as young as once he was, his talents natural and acquired, bristle with the vigor and keenness of youth. His observations in the May number in regard to its conduct, upon assuming the chair, are broad and generous in sentiment and highly opportune. His views respecting tuberculin and its discoverer are conservative, and those of the sincere seeker for truth, accepting gratefully present achievements, leaving doubtful questions as cases in Court.

All success and honor to our quondam friend!

CORRESPONDENCE.

DR. ATKINSON EXPLAINS.

St. Louis, June 11, 1891.

Editor Review.—In a late number of the Weekly Review, in a short report of the proceedings of the State Medical Board at Jefferson City, there was a reference to Dr. Atkinson, which I wish to reply to in your columns. As regards my action in the meeting of that body, the facts are as follows: At the urgent request of Dr. Dudley, I asked the governor not to send my commission until my connection with the St. Louis Board of Health ceased with the qualifying of my successor. The new Board held its first session the Monday before we met in Jefferson City. I sought the governor as soon as I had dined, and while the Board was in session. He was engaged with other visitors, and therefore my commission was not given to me then, but sent a few minutes later to the meeting room. It was presented to the acting president of the Board and acknowledged by him. No time offered after that for taking the oath of office, and at no time was my presence needed for a lawful quorum until Dr. Hall left the room, when I then asked to be informed of my legal status. The secretary of the Board pronounced against me, saying that were he in my position he would not think himself entitled to vote. I accepted his views and left the room. That is the head and front of my offending.

As regards the three-term question, I am sure that every member of the State Board of Health would like to see three or four terms adopted by all medical colleges, but the issue between us is our legal right to take a step that would largely partake of the nature of law making. Some members of the Board seem inclined to "see" power and authority to do things that would, in the opinion of the balance of us, subject us to deserved censure. These things we won't do without a clearly expressed legal opinion from the attorney general of the State. When that comes there will be plain sailing.

We think a diploma is not sufficient evidence of proficiency, and in an important step of this kind you must not expect men with the courage of their convictions to yield to a hue and cry. I am not an alumnus of any Missouri College, nor am I interested in any manner in any of them; therefore, I don't choose to be made use of in this contest for students. Let them fight it out elsewhere, and then let the dead college be buried in the same grave with the dead medical journals.

Respectfully,

R. C. Atkinson.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated Meeting, Saturday evening, June 13, 1891, Young H. Bond, M.D. in the chair.

Dr. Broome read a paper (see page 501) on

Gonorrhœa and its Rational Treatment.

Discussion.

Dr. Bond.—What is the average duration of treatment of the cases?

Dr. Broome.—Actively, about two weeks: Though the treatment is continued somewhat longer, but there is scarcely any pus discharged at the end of that time.

Dr. Bond.—Has that been your observation in a large number of cases?

Dr. Broome.—This treatment has been pursued pretty constantly only during the last winter.

Dr. F. R. Fry said, the members of the Society will doubtless agree with me that periodically, some new mode of treatment of gonorrhœa is brought forward; and also periodically, the discovery of some new process or method of subduing a great many of the genito-urinary neuroses, that are so troublesome for the average practitioner, or indeed for anybody else, to treat. Dr. Broome's paper contains much that is practical; and it touches on both of the suggested points; and yet, in view of what has come to my knowledge, from very prominent sources in this country, we must know much more about the pathology of the disease before we can be convinced that the general practitioner, or any other practitioner, that has Dr. Broome's facilities, will meet with the results that he has attained. These remarks are made, not in a spirit of criticism or antagonism, but, the speaker said, he had several times seen illustration of the facts mentioned. For instance, several years since a prominent English medical gentleman, a member of the army, published a series of statistics, that were very remarkable; wherein he showed how rapidly and frequently he had cured gonorrhœa with the use of sulphurous acid injections. His cures were fully as brilliant as those detailed this evening. This surgeon claimed to have cured the disease and to have obliterated all trace of pus accumulation in less than two weeks. In the composition of these reports one factor in the mode was specially observable, namely, the cases of gonorrhœa are treated methodically and energetically: The patient is put to bed; injections are administered by the physician or a trained nurse; the good results obtained, were doubtless due, rather to the systematic regimen enjoined, than to the medicament or special medicine used.

In regard to genito urinary neuroses. We have heard wonderful accounts of what has been achieved by local treatment; and yet the remedies do not stand the test of time and general experience: for instance, when the urethral endoscope first came into vogue, several gentlemen came forward with very brilliant statistics, and cases of genito-urinary neuroses were reported *cured* by that method, that could only be accomplished after the location of the disease by this instrument that ensures so much precision; but little is said about those cases now. In these cases there is frequently a wrong diagnosis, and much misapprehension of the real nervous state or condition of the patient. In the case of a patient, who is of a distinctly neurasthenic character, it is frequently observed that some local cause, some state of inflammation, will intensify his neurasthenic condition: but no local trouble will precipitate a patient of a neurasthenic type into a truly neurasthenic condition; though such cases are adduced. Many of these cases are, to a certain extent, relieved by local treatment. But one fact is demonstrable, that patients are often not kept under observation long enough to make the claim of a cure certain or reliable. On the other hand, many cases—and I think this number is larger than the other—are made worse by attempts at local treatment. We constantly hear of surgeons claiming that they cure very distressing cases of sexual or genito-urinary neurasthenia; and yet anybody who is in the field of neurology knows well enough the fallacy of such claims, since many of these same cases come back to us all the time. Even gentlemen who do not make a specialty of neurological practice know the fact. Therefore, in order to be convinced that anything very remarkable has been done in the way of relieving the peculiar type of neurasthenia, due to irritation of the urethra, a more convincing and larger set of statistics are requisite. We are very apt to overestimate the benefit accomplished in that line.

Dr. Gregory being called upon for his experience in the treatment of gonorrhœa, said he supposed he had the ordinary success in these cases, but rarely any extraordinary success; perhaps a very intractable class of cases consulted him; certainly he had not, in the large proportions of his cases, been satisfied with the results of his efforts. For several years past he had been in the habit of using simply a wash of bichloride of mercury, about a grain to five or six ounces of water; and it has given results quite as satisfactory as any other method of treatment.

Dr. Bond inquired: What is the duration of treatment in your cases?

Dr. Gregory replied: Sometimes they are intermin-

able; continuing for several months and perhaps cause some nervous troubles. He rarely ever gave any internal treatment except bicarbonate of soda; had not used balsam of copaiba or medicines of that kind for many years; nobody but very old-fashioned doctors use them now; he depended almost entirely upon antiseptic treatment. A solution of bichloride of mercury afforded him quite as satisfactory results as anything else.

Dr. Dalton said.—The treatment of gonorrhœa, of course, depends upon the stage; no hard and fast rules can be laid down for its treatment; each case must be considered apart.

The tendency now-a-days, is to mild applications; the old heroic, abortive treatment is rarely used.

In the very acute stages he used no astringents, preferring the simple hot water injections several times daily, together with alkaline diluent drinks.

As soon as the very acute symptoms subside, and a free flow of pus comes on, he used as an injection a mixture composed of sulphate of zinc, calamine, and mucilage of acacia; each ounce containing two grains of zinc, eight grains of calamine and two drachms of acacia. In the stage of decline he still used bals. copaiba. Keyes, in his late work (1890) heartily endorses its use. He had used a method somewhat similar to that recommended by Dr. Broome, *i. e.*, after deep urethral irrigation he injected a solution of pyoktanin. He had obtained fair results, but believd Dr. Broome's method is better, and shall give it a trial. It strikes me as rational, and thanked the doctor for the suggestion, as well as for the interesting paper.

The physician is fortunate who can cure gonorrhœa inside of three or four weeks. Dr. Broome thinks he has gained much better results; therefore the treatment should be given a thorough trial.

Dr. Bond.—What is the average duration of treatment?

Dr. Dalton.—Four or five weeks is the average; they do not usually reach the City Hospital in the early stages, but only after they have had it sometime.

Dr. Bond.—That question is asked because the authorities are agreed that four or five weeks is the average duration of treatment of gonorrhœa. We should like to know from Dr. Broome whether or not that is the true average duration of his cases.

Dr. Broome, in closing the discussion, thanked the gentlemen for their criticism, particularly Dr. Fry, for his conservative suggestions. No fulsome representations were made in favor of the treatment presented. It was simply stated this treatment was new to him, and that this agent, and this mode of treatment had afforded him more satisfaction than anything else he had ever used. It appeared to him to be specially and essentially a rational treatment. No record of the exact time of treatment was kept, but in none was there a discharge of pus longer than ten days or two weeks; many cases but one week. By this mode no harm is inflicted, whereas it may be with bichloride of mercury. In some cases the injection of the mercury, of even a grain or two in 5 or 6 ounces of water, will set a patient crazy; pyoktanin occasions no pain. Experiments early last fall were commenced with an emulsion of the pyoktanin, manufactured by Johnson and Johnson—about a 2% mixture; very slight benefit was derived from its use. A constantly increasing proportion was used, until now the speaker used five, six and seven grains of the pure powder. Instead of irrigating the *urethra* simply, the bladder also is irrigated with a solution of benzoic acid, preliminary to insufflating the urethra with the methyl violet. It is necessary to suspend the penis in a bag for a while to protect the clothing from the powder. One of my patients accidently during the night ruptured the bag, and in the morning the bed was extensively blue; and he had considerable difficulty in satisfactorily explaining to the people how the bed clothing became in that condition. These experiments will be continued as opportunity is afforded.

Report of an Autopsy.—A Uterus and its Appendages.

Dr. Lutz presented the specimen and said:—This specimen was obtained post-mortem; he did not know whether to denominate it a pathological or a physiological one; he had never before seen a specimen like it. The history obtained is, briefly, this: The girl, from whom this was taken, was 16 years old, a native of the city, and both her parents are natives also. She was an epileptic from early infancy, and the day before yesterday, without any apparent additional cause, during an epileptic attack, she died. The father tells me the girl never menstruated, and so far as the macroscopical appearance of the peritoneal cavity, including the true pelvis is concerned, there was no evidence of any disease. The statement made that she had never menstruated is corroborated by the absence of any cicatricial appearance on either ovary, as there is no cicatrix on the ovaries, so far as can be discovered by a rather careful examination—no appearance of there having been a corpus luteum—in other words, no ovulation from these ovaries. The fimbriated extremity of the tubes and broad ligament are normal; the os uteri is rather patulous; whether or not that is a post-mortem condition is problematical. The uterus itself is two and a half or three inches in length. The specimen is presented that some information as to the ovaries might be obtained. The opportunity is rarely afforded to make a post-mortem examination of a virgin, or children before the age of puberty, and the absence of the corpus luteum indicates that ovulation had not taken place. (The ovary being opened small cysts were found.)

Dr. Brokaw said he believed the ovaries to be in a state of cystic degeneration, though internal. In the cases he had seen of cystic degeneration, the cysts were more superficial. In this case they are in the central part of the ovary. The ovaries are about three times larger than normal, and seemingly there is very little of the healthy portion left. Now what agency this may

have had upon the epilepsy of the individual it will be difficult to say.

Dr. Bond said.—The specimen presented possesses interest from several standpoints. As a rule, even before menstruation is established, we have evidences of discharge of Graafian follicles. In this case there is an absence of this evidence of ovulation, which, together with the gross appearances of the ovaries, leads me to believe that the pathological state, now ascertained, prevented ovulation. Another interesting feature about the case is the history of non-menstruation. Now it is quite well recognized at the present day, that ovulation and menstruation are not necessarily concurrent, not necessarily related, at least after the function of menstruation has become established. But ovulation is essential to the introduction of the process of menstruation. If ovulation never occurs, we never have menstruation; but when the process of menstruation has been instituted by the stimulant imparted by ovulation, then menstruation can and will go on independently of ovulation. As a justification for this belief, take the case of girls in central Asia—Bombay, who have been spayed for the purposes of the harem. Those girls never menstruate; and for the reason that the stimulus to menstruation, that proceeds from ovulation, is absent—the nervous center which presides over menstruation does not receive the impulse of growth and development that is necessary to menstruation. Interstitial degeneration of the ovary is usually due to some of the exanthemata, measles, etc. Sometimes a case of mumps by metastasis will entail sterility as a consequence of destructive changes in the ovarian structure.

Dr. Dorsett said this case reminded him of a case of a girl, who was admitted to the female hospital about two years ago, to be treated for epilepsy; and who gave the following history: She was æt. 19 and a native of England; had received an injury to the head some years previously; had had epiplepsy since she was 13 years old; and from the fact that her epilepsy came on monthly, it was supposed that her ovaries had something to do with her epileptic seizures. With some difficulty we examined her, having first placed her under an anæsthetic; we could pass the sound into the uterus only to the depth of one inch; she had, appparently an infantile uterus. The ovaries were at that time removed; and when the parts were exposed, the uterus itself presented a very peculiar and anomalous appearance; there was no body to the uterus at all; there was simply a narrowing; no Fallopian tubes, but there were two ovaries about double the normal size and attached to the broad ligament. She recovered kindly from the laparatomy; and, strange to say, she had no convulsions for six months, hence we were almost ready to declare that the operation had effected a cure. After the six months, however, convulsions returned just as regularly as before. She died, finally, in an epileptic fit. At the site of injury to the head there was an indentation upon which a slight pressure produced convulsions, not a well marked typical epileptic convulsion, but rather a hysterical condition. She would throw herself upon the bed always upon the buttocks, and, with the feet or hands, pound the floor for 10 or 15 minutes; and then if we walked away, or did not observe her longer, she would get up and go back to bed.

Dr. Meisenbach said he would like to ask Dr. Lutz if there was any malformation or disproportion of the external genitalia?

Dr. Lutz.—No, sir; they were apparently well formed; she was a well-developed girl; the mammæ and genitalia were well developed.

Dr. Meisenbach.—Were there any symptoms of sclerosis or organic disease of the organs?

Dr. Lutz.—None other than the epilepsy; the immediate cause of death seemed to be congestion of the lungs; because her lungs were intensely congested, and both cavities of the heart were entirely empty; nor was there any injury to the head; nor any external mark of violence for which search was made with due diligence.

Dr. Meisenbach continued.—The reason these questions were asked is, because in cases of suppressed menstruation or where menstruation does not take place at all, we often have a want of development of the sexual apparatus; that is we may have a vagina wanting or only partially developed; or the cervix or body of the uterus wanting or partially developed; or the fimbriated extremity, or tubes, or ovaries in a like state of development. In connection with the nervous disturbance, in this class of cases, we may have a lack of development and function, and also a defective organic condition of the heart. The speaker distinctly recollected a case in which a young lady, æt. 23, came under his notice; she was extremely chlorotic, and there was serious heart lesion; but the genitalia were very imperfectly developed. An examination revealed the fact that the uterus was wanting in form; and the breasts were not developed; the vagina was so contracted that the point of the little finger could not be introduced; on this account a thorough examination was utterly impossible. The patient finally died, but a post-mortem could not be obtained.

Fracture of the Patella.

Dr. Lutz read a paper on transverse fracture of the patella treated by wire suture.

Dr. Prewitt said he had had some experience in treating fractures of the patella, and deemed it right, in compound fracture, and in cases where we are convinced, that there are fragments of tissue and bone separating the fragments, to cut down and remove the fragments, and to wire the bones together: Especially is it justifiable in operating under antiseptic precautions, and though it has proved very successful in many cases, we are not justified in doing this operation in simple fractures, because we obtain fairly good results without it; and every now and then a patient loses his life in consequence of the operation of wiring.

Dr. Meisenbach.—The proposition laid down by

the gentleman who read the paper is, that we should operate, in simple transverse fracture of the patella, only when the case presents no obstacle to surgical interference. How are we to know whether the patient presents an obstacle to surgical interference? It is utterly impossible. Some patients that present themselves seem suitable for operation; but it may prove that they are not. Furthermore, the essayist says the obstacles to union are, want of apposition of the fragments, und ex-extensive contraction of the quadriceps femoris muscle; the patellar aponeurosis; occlusion of the joint, and contraction of the ligamentum patellæ itself. The ligamentum patellæ, as one of the obstacles, we need not consider since it is non contractile. The contraction of the quadriceps extensor is the most important factor to be considered.

De. Lutz —The doctot does not state my position correctly. The speaker said that the separation of the fragments was due to the contraction of the quadriceps axtensor, to the contraction of the patellar ligaments and to the interposition of blood and serum between the fragments; but that the obstacle to union is simply and solely the interposition of the patellar aponeuroses.

Dr. Meisenbach.—The other points in the paper were that the reason why the operation is not performed more often, is because of the lack of faith on the part of the surgeon that he can keep the parts in an aseptic and antiseptic condition, and thus avoid the occurrence of suppurative inflammation: and furthermore, on account of his personal timidity. The surgeons, who are in favor of non-operative interference, are decidedly in the majority. The position taken by the speaker on a previous occasion, in regard tc this question, was, that it was more important to have the limb placed again in a physiological position and condition, with its function re-established as soon as possible, so far as the normal action of the parts is concerned; and, that in order to do this it was necessary to keep the quadriceps extensor in good condition, because that was the factor that occasioned the most untoward and unsatisfactory results. When atrophy—inanition, or want of development takes place in those muscles after fracture of the patella, (no matter whether bony or ligamentous union has taken place) the result is not of the best character, because the muscles are not in their normal condition.

In regard to the authorities, who do not favor this operative procedure, we have many upon this side of the water whose names we can not controvert, so far as surgical standing, or so far as mechanical skill or attainments in general surgery are concerned. For instance, Stephen Smith, in his operativs surgery, latest edition, at page 135, states: "The operation is rendered safe only by the strictest compliance with the antiseptic treatment of wounds. The conditions which justify the operation and make it undoubtedly necessary are, 1. Compound fracture of the patella. 2. Old fractures with ligamentous attachments of fragments so lengthened or weakened as to render the limb feeble or useless. In simple fracture, without complication; wiring the fragments gives no better results, as far as relates to the usefulness of the limb, than the judicious use of apparatus.

Here is another quotation from Kœnig's Special Surgery, page 399, the latest German edition: "The number of cases of wiring of the patella has increased within the last years, especially since Lister has advocated his method. Lister, Wahl, Chanvel, Jalaquier and Brunner in Kronleins Klinik, have made observations, based partly on their own experience, and partly on the statistics of others; and from these it appears that the operation isnot in all hands a simple and innocent one, since many have died as a result of it, or have had anchylosed joints following it." Further on he makes the emphatic declaration: "But the physician that undertakes this operation must be fully cognizant of the responsibility he is assuming. He must be competent to control asepsis and antiseptics thoroughly."

Now, what does that language mean; does it mean that any graduate of a medical college shall open the knee-joint upon the first occasion that a fracture presents itself? Another authority, one whom we cannot gainsay, is John A. Wyeth. In his Text book on Surgery, second and latest edition, at page 316, he says: "Many innovations have been made in the treatment of this fracture, some of which are unnecessary; others, unjustifiable. Among the former may be mentioned aspiration of the effusion into the joint, and between the fragments. This should be done only when the capsule is distended to an extraordinary degree. The most unjustifiable method of treatment ever introduced in this fracture is that of opening into the joint, and wiring the fragments together. Unjustifiable, because first of all, it is dangerous; secondly, it is unnecessary. A careful observance of the rule of practice just laid down will secure a ligamentous union, with a restoration of the function of the extremity, equally as good in many cases as that enjoyed before the injury, and in the vast majority of cases equal to all the ordinary requirements of the limb; and this is accomplished without the slightest risk to the patient's life, and with no disturbance of his comfort, beyond confinement to bed for two weeks, to the room for four weeks, and to crutch and cane for about six months. On the other hand, by wiring, although an osseous union may be obtained, the restoration of function is not more complete, the confinement in bed is longer and the danger to life and the integrity of the part sufficiently great to deter the surgeon from employing this method of practice."

Now let me refer t o Lewis A. Stimson, who, in his "Hand-book of the Medical Sciences," in speaking of wiring the patella says: "Although the antiseptic method of treating wounds gives great security against dangerous complications, I do not think it is justifiable to incur the risk when so favorable results may be expected from other methods that involve no such danger. Even wiring the fragments together does not insure bony union."

Last, but not least, comes W. T. Bull, a man whose reputation is not only national but cosmopolitan; and, for whom we can also say, a man who is no tyro in surgery; he has abundantly proved his capabilities and qualifications. In the *Medical Record* of March 22, 1890, on the results of non-operation of fracture of the patella, he reports 16 cases: 10 perfect function; 4 other cases, flexion and extension imperfect, but good use of limb; 2 cases no power of extension whatever, and the patients were compelled to wear supports or walk with a cane. The character of union in 14 cases was good; in 1 there was bony union, in 2 no appreciable separation of fragments; in the other one quarter to one and a quarter inches; average, nine-tenths of an inch; 2 bad cases; 1, one-quarter inch, 1, one-and-a-half inches. The author, in the resume of these 16 cases, uses the following strong and effective language: "The author emphasizes the need of stimulating the quadriceps. He admits, that in case the ligament and joint function begin to weaken after the sixth month, wiring of the fragments should be done, but condemns, without exception, wiring in recent fractures, and challenges those surgeons who resort to the immediate suture, to explain by what process of reasoning they can call it a justifiable procedure."

This is only a small part of the testimony that could be adduced to support the position taken. There was an extensive resume of this subject in an article published in the *Annals of Surgery* of 1889 or 1890, the tenor of which is, that it is unnecessary to make the patient undergo the risk of so serious an operation as wiring the patella, when we can get good results, and in the majority of cases, perhaps, better results without such operation.

The speaker in his experience in private practice in ten years had treated five cases of fracture of the patella. He treated them by the extension method, adopting Hammond's or some modification of his splint; and of those five cases, he still had three under observation. He regretted he could not now present a patient (who was here a week ago), whom he treated two years since, and in whose case the separation of the fragments is now perhaps an inch or an inch and a quarter. This man walks with ease and agility, as well as any man who had never sustained such an injury; flexion and extension of the limb are perfect; and as evidence of the excellent result, he will raise the entire weight of his body resting it on and rising into an ordinary chair. This case shows an excellent result.

The deductions then are, that wiring of the patella is still an open question with the majority of operators in favor of non operative treatment. Bony union is not assured; when bony union results the function of the limb is no better than when ligamentous union results by non operative treatment. By following the non operative plan there is no danger to life. The fragments are approximated by position and adhesion strips; elevation and the use of the posterior splint and keeping up the integrity of the quadriceps by massage. The length of the ligamentous union has nothing to do with its perfect function. In the majority of cases, treated by non operative method; the functional results are good.

Dr. Broome said he agreed with Dr. Meisenbach, that the profession has abandoned the practice of wiring the patella, if they ever adopted it. Dr. Senn, another whom Dr. Meisenbach did not mention, and one of the most original men of the profession, in this country, has never resorted to wiring the patella. But he was gratified in seeing the specimen presented by Dr. Lutz, inasmuch as it was a beautiful exhibition of the results of that treatment; and in examining it, one would feel very much like undertaking the same operation, when ever a case presented itself. The speaker had never performed the operation; but had secured excellent results from the use of the posterior splint and adhesive strips. Having been surgeon of a railroad for about nine years, (in the railroad service this accident would be likely to occur as frequently as in any other service) during that entire period, he had seen only three cases. It is thus evident that it dose not occur frequently. In these three cases, the results were good. The process of cutting into the knee-joint and employing the wire, in the manner pursued by Dr. Lutz, involves considerable danger, it matters not how carefully it is done. In closing, the speaker disired to ask Dr. Lutz this question; on the supposition that he himself had sustained a transverse fracture of the patella, and the fragments should become widely separated, would he allow another surgeon to wire the fragments of his patella?

Dr. Lutz replied if he was fully convinced that he knew how to wire his patella he would allow him to do it; because he would get a better result and a better joint by the fixation method. The authorities which Dr. Meisenbach has quoted are partly ancient history, and familiar to every reading surgeon. He also makes a mistake as to the position of the essayist in the *Annals of Surgery*, who was in favor of the wiring operation. The statistics which have been gathered, especially by Bruner, and upon which many of the German textbooks base their opinions, have been analyzed and put in their proper places. The statistics of Phelps and Flurer show the correct place of this operation. Phelps presents the history of 80 or 90 cases operated on in five years, with no death and no anchylosis. Gentlemen, that speaks volumes as compared with the opinion of gentlemen like Wyeth who has never performed the operation. Even Smith, probably, never operated for fracture of the patella. Now, it was not asserted, as one would infer from what Dr. Meisenbach has said, that a mere tyro or medical study just out of a medical college, should undertake such an operation; in fact, Mr. Chairman, it would hardly be permissible for such a one to undertake an operation for simple fracture of the patella, unless he was forced to it; not that there is any special objection to the young and inexperienced surgeon; but, because, ordinarily, others are at hand who have more experience in the treatment of such cases. It is not to be supposed that any gentleman

should, immediately after graduating, undertake operations of such gravity as the opening of a knee joint. Such a thing was not advocated. What was advocated is this: that the ideal result in such a fracture is obtained by wiring the patella. Ordinarily, the establishment of the function of the limb is a good enough result; when, however, you can establish in addition a perfect physiological function of a limb, a perfect contour; an ideal restoration of the normal physiological condition of the structures involved in the injury is the more desirable, and this is best accomplished by wiring the patella. Now, the results of the experience of those gentlemen who have had the most extensive experience in this operation, should be a more worthy guide to us than theoretical deduction, or opinions of gentlemen who had had no experience in wiring the patella; because no matter how much weight their opinions may abstractly be entitled to, if founded upon mere theory, they must be over-weighted by the actual experience of men who have operated. Now if, as Dr. Meisenbach states, the length of the ligamentous union has nothing to do with, and bears no important relationship to the use of the function, then, pray, what does? The fact is that the ligamentous inter-osseous union becomes longer and longer, as the patient overcomes his timidity in using the quadriceps extensor muscles. Union of the bone cannot be obtained so long as the aponeuroses hangs down between the fragments. Everybody, who has even seen a fracture of the patella, can verify the fact that the aponeurosis dips down between the fragments and is there firmly wedged; and this must be removed with the dissecting forceps. So long as the aponeurosis covers the surface of the bone there can be no bony union.

Instead of saying that this operation is still *sub judice*, the speaker ventured the assertion, that this particular operation, for this kind of fracture of the patella, will rapidly come into favor. Anyone who reads the discussions which occurred in the New York Academy of Medicine, in which Bull and Wyeth, and several others took a stand against the operation of wiring, will see that they were completely scored by the 25 patients, which Dr. Phelps was fortunate enough to present to the society; and there is no doubt that in the near future, wiring the patella will become a standard operation. The speaker did not wish to be understood as under-estimating the gravity of the operation, or the necessity of observing strict adherence to those things which it is our duty to observe. When we read that Dr. Keen, of Philadelphia, tells his students that a wound should heal in a week, it may be a very strong statement, yet it indicates the forward tendency in surgery; and that wound accidents are, in a very large number of cases, due to some imperfection on the part of the surgeon's manipulations or of his surroundings, and are inexcusable. It is true, human nature will never be entirely perfect; but we have advanced to a much more elevated standard within the last 15 years; and the more perfect we become, the more, I firmly believe, will become the practice of wiring the patella, especially since it gives a better joint. Dr. Phelps permits his patients to walk out in three weeks.

SOCIETY NEWS.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.

Vermont State Medical Society, Burlington, October 15 and 16.

Mississippi Valley Medical Association, St. Louis, October 14, 15 and 16.

Tri-State Medical Association of Tennessee, Alabama and Georgia, Chattanooga, October (date to be fixed).

Medical Society of Virginia, Lynchburg, October 27, 28 and 29 (subject to change).

New York State Medical Association, New York, October 28, 29 and 30.

Louisiana State Medical Society (place and date to be determined).

MEDICAL MEETINGS.

The St. Louis Medical Society holds its meetings every Saturday evening at 8 o'clock P. M., to which medical men are cordially invited.

GUHMAN, M.D., Rec. Secretary. L. BREMER, M.D. President for 1891.

HOW WE GOT LEFT.—The method of selecting the nominating committee requires rigid amendment. On a snap notice from the secretary after a wordy address has worn out delegates, the States are ordered to select their member. The absence of all but some college clique results in the choice of a nonentity as member. Dr. Gihon's amendment would have secured the needed reforms. Either something similar should be adopted or proxy voting by registered delegates should be permitted. The executive committee amendment, recommended by the Committee on President's Address, should either be rejected or so amended as to permit the sections to nominate it. The Association has repeatedly rejected this executive amendment and the arguments previously urged against it are still potent. An antipathy to notorious waste of time prompted the committee to the recommendation of this discarded remedy. An executive committee drawn from the sections could do excellent work. An executive committee named in the way described would inevitably result in more waste of time.—*Med. Standard.*

PUBLISHERS' NOTICES.

MEDICAL BOOKS.—We have one copy each of the following standard medical books, which we will sell at 50% off the list prices:

Cazraux & Tarnier, Theory and Practice of Obstetrics, Cloth binding. Published by P. Blakiston, Son & Co. 1885. List price, $8.00.

Encyclopædic Index of Medicine and Surgery, Leather

binding. Published by Birmingham & Co. 1882. List price, $5 00.

Reynold's System of Medicine, Cloth binding. Three volumes. Published by Lea Bros. & Co. List price, $15.00.

J. H. CHAMBERS & Co.,
914 Locust Street, St. Louis, Mo.

SUNDAY EXCURSIONS.

A St. Louis, Keokuk & North-Western Railroad train will leave Union Depot, St. Louis, every Sunday morning (beginning June 21st) at 7:30 for Quincy, Ill., and intermediate points. Round trip tickets at very low rates. Ticket offices, 112 N. Fourth Street, and Union Depot.

CHRISTIAN ENDEAVOR CONVENTION.

The Burlington Route has made one fare for the round trip between all points on its lines and Minneapolis for the above named convention. Tickets good going July 7, 8 and 9 and returning July 12 to 15, inclusive. Parties desiring to remain longer than the limit named for the convention may have additional time by depositing tickets with agent at Minneapolis.

For full information regarding rates and arrangements apply to C. L. Grice, City Passenger and Ticket Agent, 112 N. Fourth St.

LOW RAILROAD RATES TO THE WEST.

The Burlington Route have on sale, at reduced rates, round trip tickets to Denver, Colorado Springs, Manitou, and all tourist points in Colorado, Utah, Idaho, Montana, Wyoming, the Dakotas and Alaska. Call at the City ticket office of the Burlington Route, 112 N. Fourth St., for rates and general information. Do not purchase your tickets until you have seen our agent.

HOW TO KEEP COOL IN SUMMER.

Call at the office of the Burlington Route, 112 N. Fourth St., and purchase a round trip ticket to one of the following cool resorts: Spirit Lake, $23.00; Battle Lake, $33 10; Minnetonka, $26.35; Minneapolis and St. Paul, $25.60. Reduced rates are also made to all the prominent resorts in the North and Northwest. All tickets good to return until October 31.

THE SOUTHWESTERN LIMITED to New York and Boston, via the "Big Four Route," is the "fastest train in America." The only line from St. Louis via Lake Shore & Michigan Southern Ry. landing passengers in Grand Central Station, New York City. Leaves St. Louis 8:05 A. M. daily; vestibuled from end to end; through sleeping car; cafe and dining car service. Ticket offices, corner Broadway and Chestnut streets, and Union Depot, St. Louis, Mo.

OLD VIRGINIA FOR HEALTH AND OLD AGE.

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The Ohio & Mississippi Ry. has now on sale at its St. Louis offices, round trip tickets to the following points at low excursion rates:

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These tickets are good for return until October 31.

The Ohio & Mississippi Ry. is the direct route to all the above points, many of which are directly on the line of our through car routes to New York, enabling our passengers to reach them without change of cars.

For detailed information as to rates, routes, limits of tickets and stop-over privileges, call on or address the undersigned.

A. J. LYTLE,
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